



## **RESOURCE AND PATIENT MANAGEMENT SYSTEM**

# **PCC+ Encounter Form & Health Summary Package (VEN)**

## **Technical Manual**

Revision 001

**Version 1.2**

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## **PREFACE**

This document contains the technical manual for the IHS RPMS New Encounter Form and Health Summary package (PCC+) version 1.2. Installation and user manuals are also provided with this installation package.

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## 1.0 Technical Manual Corrections

#	Page/ Section	Text	Has Been Changed To	Date Changed
1	Section 4.1		[Added] The SDZPCC key must be assigned to the site manager to setup the scheduling clinic for PCC+.	6/25/02
2	Section 5.5	(Step 3) Assign VENZSCH key to scheduling clerks.	(Step 3) Assign VENZSCH key to scheduling clerks. The SDZPCC key must be assigned to the site manager to setup the scheduling clinic for PCC+.	6/25/02

## 2.0 Introduction

The PCC+ New Encounter Form and Health Summary package (VEN) enables PCC users to design and generate highly customized encounter forms and health summaries on a laser printer. The new encounter forms combine features of the traditional PCC encounter form, super bill, and health summary. Customized elements of the form come from the PCC database (demographic information, eligibility data, problems, purposes of visit, allergies, health maintenance reminders, and medications), a site preference file (orderables and associated CPT codes) and a user preference file (diagnoses and associated ICD9 codes).

## 2.1 Background

This is the second release of PCC+. This package is unique in a variety of ways. From a technical perspective, most of the actual computing is done outside of the traditional M/PCC environment. In addition, the PCC+ requires a great deal of customization to reflect user and site preferences. Finally, most of the computing is done by background processes in both the MUMPS and Windows environment. There are only a few foreground processes, and all of these are brief. Consequently, package maintenance for PCC+ will be more time consuming, complex, and diverse than is typically seen with other RPMS applications.

Despite these technical challenges, the potential benefits of the package are significant. Initial experience with PCC+ suggests that any extra effort required to maintain the system will be easily compensated for by improved clinical documentation/coding, improved staff productivity, and increased third party collections. No other PCC application, with the possible exception of the health summary, has a greater effect on providers, coders, and the overall system of care.

Reliability is critical. The goal for PCC+ operations should be: **every patient, every encounter, every day**. Let there be no doubt, site managers will have to change the way they do business to ensure that this application is running properly whenever patients are being seen. This manual gives detailed descriptions for the care and feeding of PCC+. If the directions are followed and users learn to use the utilities presented below, your site will realize the potential benefits of this new application.

## 2.2 Technical Foundation

The basic functionality of PCC+ is to provide a comprehensive link between the PCC+ database and Microsoft Word®. This is accomplished through a Word feature called mail merge. Normally, mail merge is used to create form letters by imbedding database “fields” into a document. A mail merge field is link to a particular location in the database. The typical form letter may contain 5-10 fields. The new encounter forms may contain thousands of fields.

The process of generating an encounter form or health summary has five stages:

1. Patient check-in
2. PCC data extraction
3. Data transmission to the print server
4. Document generation
5. Document spooling and printing

The overall process is complicated by background processing, multiple servers/operating systems, and complex connectivity issues.

Background jobs serve two functions:

1. They improve the performance of the check-in process.
2. They buffer the output of the data extraction process to prevent the Print Service from being overloaded.

PCC+ requires that two separate servers, each running a different operating system, must work in concert to generate documents:

1. The traditional RPMS server—typically a UNIX RISC box running the PCC on Micronetics® MUMPS.
2. A print server (or servers)—a new Windows 2000 PC running Office 2000 and the PCC+ print service.

Finally there must be reliable, fast network connectivity to ensure the following:

1. The RPMS server must have a bi-directional LAN, TCP/IP connection to the print server.
2. The print server must have network connections (LAN/WAN, TCP/IP) to all printers that generate encounter forms.

The print server must continuously run FTP and VCN remote control services so that the system can be upgraded and checked remotely by support personnel. This functionality is already available on your RPMS server.

## 2.3 What's New In Release 1.2

The new release of PCC+ (1.2) was developed to make it easier to manage the system. Most of the changes were geared toward site managers and technical support personnel. End users will probably not notice any differences other than improved reliability. Version 1.2 has two objectives:

- Fix bugs/problems reported in version 1.1.
- Provide a whole new set of utilities to install, configure and maintain the system.



### 2.3.1 Compatibility with FileMan and Kernel

**Problem:** PCC+ was not compatible with FileMan 22 and Kernel Part III.

**Solution:** Resolved. PCC+ code was updated and now works with FileMan 22 and Kernel Part III.

### 2.3.2 Integration with the IHS Scheduling Package

**Problem:** PCC+Version 1.1 is not compatible with the latest version of the scheduling package. Sites using the Scheduling package have to check patients in two times, once into Scheduling and once into PCC+.

**Solution:** Resolved. A patch has been added to the Scheduling package. PCC+ forms can now be seamlessly generated from the Scheduling package check-in process. The Scheduling package can now be used as an alternate “front end” for PCC+.

Also, a generic interface has been added to PCC+ so that PCC+ knows it has information coming from the Scheduling package. This interface can be used with other external check-in processes (i.e., ILC Billing package, IHS Scheduling package, etc.).

### 2.3.3 Health Maintenance Reminders

**Problem:** The health maintenance reminder fields occasionally overwrite themselves.

**Solution:** Resolved. The health maintenance reminders print properly.

<p><b>Note:</b> No new health maintenance fields have been added to version 1.2.</p>
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### 2.3.4 Health Summaries

**Problem:** Health summaries that contain the new diabetes and asthma sections cause the print service to crash.

**Solution:** Resolved. The print service no longer crashes when health summaries contain either of these two sections. The problem was caused by imbedded control characters that are not found in other sections of the health summary. PCC+ now ignores these control characters.

### 2.3.5 Transposition of Prescription Fields (Pharmacy)

**Problem:** When designing a new form, some users transposed the fields of different entries the prescription list such that the sig of one prescription was printed next to the name of another unrelated prescription.

**Solution:** First, validity-checking tools have been added to PCC+. As long as users develop encounter forms according to instructions, these tools will automatically be brought in to play and prevent an invalid form from being deployed (see below). In addition, version 1.2, automatically combines all prescription fields (prescription name (mm), date (md), sig (ms), quantity dispensed (mq) and pharmacist remarks (mr) and concatenates them with proper formatting into the prescription name field (md). This new feature will prevent the erroneous transposition of fields across prescriptions.

### 2.3.6 Documentation of Prescription Sigs

**Problem:** The use of abbreviated pharmacy sigs (i.e. TIT TID) is considered ambiguous and possibly dangerous by some pharmacists.

**Solution:** Resolved. Users now have the option to print the abbreviated (i.e. TIT TID) or the long (i.e. take one tablet three times a day) form of the pharmacy sig on a form-specific basis.

### 2.3.7 Refills (Pharmacy)

**Problem:** Refill information was missing from the prescription section of the encounter form.

**Solution:** Resolved. The number of refills left is now included in the prescription information. This feature only works if the prescription file is populated. It will not work at sites using the Viking pharmacy system.

### 2.3.8 Prescription Filtering

**Problem:** Users wanted more control over what drugs were displayed in the prescription section.

**Solution:** Resolved. On a form-specific basis, users can now filter prescriptions based on the following criteria: all Rx's or a non-redundant list, all active Rx's or just active chronic Rx's. This feature only works if the prescription file is populated. It will not work at sites using the Viking pharmacy system.

### 2.3.9 Visit Control Number

**Problem:** In some cases the Visit Control Number (VCN) was either invalid or missing

**Solution:** Resolved. The VCN is now reliably and validly generated every time a visit is created. This fix is dependent on installation of Patch 7 of the PCC Data Entry package.

### 2.3.10 Print Server & RPMS Server Synchronization

The print server and RPMS server must be synchronized properly in order for the PCC+ package to function properly and for templates to print properly. Errors in synchronization can cause MS Word® to freeze and require a system reboot. Synchronization errors can also prevent users from accessing all available Encounter Form templates and print groups.

### 2.3.11 Printer Group Synchronization

**Problem:** Due to installation error, printer groups entered into the PCC+ configuration file on the RPMS server and the PCC+ print server frequently are not synchronized. If the printer groups are not entered properly in both servers, errors can occur, including print service failure. There are three scenarios for print group synchronization:

1. A printer group is installed on both the RPMS server and the print server. This is the desired scenario.
2. A printer groups is loaded on the RPMS server, but it is not loaded on the print server. The outcome of this scenario will cause the print service to fail.
3. A printer group is loaded on the print server, but it is not loaded on the RPMS server. The outcome of this scenario is not as bad as scenario 2, but the user will loose the use of that printer group.

**Solution:** A new utility was added to partially automate, guide and validate the process of adding new printer groups. In addition, the PCC+ print service was extended to check for synchrony and provide error reports. The error report can be called up from the RPMS server and will detail:

- Printer group(s) properly synchronized on RPMS and print servers
- Printer group(s) registered in print service, but not in RPMS printer group file
- Printer group(s) registered in RPMS printer group file, but not in print service

Errors are not automatically repaired—active user intervention is required to repair pre-existing problems.

### 2.3.12 Template Synchronization

**Problem:** Encounter form templates must be recognized by both the RPMS and print servers. The configuration files on the RPMS server and the PCC+ printer service application on the print server can be synchronized correctly or incorrectly during installation. There are three scenarios for template synchronization:

1. Each print template file is installed on both the RPMS server and the print server. This is the desired scenario.
2. A template file is loaded on the RPMS server, but it is not loaded on the print server. The outcome of this scenario will cause fatal errors to occur in MS Word®, and a system reboot will be required.
3. A template file is loaded on the print server, but it is not loaded on the RPMS server. The outcome of this scenario is not as bad as scenario 2, but the user will lose the use of any templates loaded on the print server, but not loaded on the RPMS server.

**Solution:** A new utility was added to partially automate, guide and validate the process of adding new print templates. In addition, the PCC+ print service was extended to check for synchrony and provide error reports. The status reports can be called up from the RPMS server and will detail:

- Print templates properly synchronized on RPMS and print servers
- Print templates registered in print service, but not in RPMS templates file
- Print templates registered in RPMS template file, but not in print service

Errors are not automatically repaired—active user intervention is required to repair pre-existing problems.

### 2.3.13 Template Validation

**Problem:** The content of the encounter form templates must be synchronized and validated in the PCC+ template configuration file (VEN EHP EF TEMPLATES) on the RPMS server and the PCC+ print server. In the past the only way to check synchrony was to literally “eyeball” the form.

**Solution:** Resolved. When a new encounter form template is developed, the user must now also create a companion “Descriptor File” detailing the contents and fields contained in the template. A new Word-based tool, the template description form is provided to automate the creation of the descriptor file. PCC+ tools on the RPMS server can access and “read” the descriptor files to validate and synchronize template information. Specifically, these tools do the following:

- Insure that templates and Descriptor Files exist on both print servers. If problems are encountered, an error report is generated. The site manager or support technician must correct all reported errors.
- Analyze the contents of templates and validate all mail merge fields contained in each template. The software checks for omissions and transpositions of fields. All errors are reported. The user must manually correct the problems indicated on the error report. The site manager or support technician must correct all reported errors.

- Insure that the information in the template configuration file is valid and synchronized with the print server. The template configuration file is automatically edited and updated.

### 2.3.14 Back up Printers Selected Out of Order

**Problem:** The print service print group function did not always operate correctly. Printers were occasionally select out of the order of precedence.

**Solution:** Resolved. The print service was debugged to help prevent this problem.

**Note:** Certain printers that do not adhere to Windows 2000 printer messaging standards may continue to experience problems with precedence and error reporting.

### 2.3.15 Forms Printing on Different Printers

**Problem:** The health summary and encounter form for a single patient would occasionally print on different printers within the print group rather than printing together.

**Solution:** Partially Resolved. The print service was debugged to prevent this problem. Unfortunately, certain brands/models of printers may not support the standard status reporting messages for Windows 2000. With these printers, problems with printer status reporting/selection may persist.

### 2.3.16 Print Group Selection

**Problem:** Users wanted more options regarding if/where specific documents are printed.

**Solution:** Resolved. Users can now specify where encounter forms and health summaries are to be printed on a clinic-by-clinic basis. The can also determine if an outguide is to be printed for specific clinics.

### 2.3.17 Orderables

**Problem:** The orderable preferences builder failed if the user attempted to create more than one set of orderables. (i.e. one set of orderables for dermatology and another set for pediatrics). PCC+ would reject the second set of orderables.

**Solution:** Resolved. Users can now build multiple sets of orderables and assign each order set to one or more specific encounter form.

### 2.3.18 PCC+ Clinic Queues

Each time a patient is checked in, he/she is entered into one or more clinic “queues” for purposes of patient tracking. For example, when a patient checks in, the patients name may be added to the medical records queue so that personnel will be alerted that a chart needs to be pulled. The patient’s name may also be added to a clinic queue so that clinic personnel will be aware of what lies ahead. Queues may be viewed and manipulated via a special PCC+ option.

**Problem:** Users wanted more options in defining PCC+ clinic queues. Invalid queue file configurations caused problems.

**Solution:** Resolved. New options have been added to provide more flexibility and reliability when defining queues.

### 2.3.19 Protection of Confidential Information

**Problem:** Placing the PCC+ mail merge data file in a descendant of the public directory may transiently compromise confidential information, but only within the bounds of the IHS firewall.

**Solution:** Resolved. Installation instructions / procedures modified. If the installer / site manager follows these new instructions, unauthorized user access within the IHS firewall will be prevented.

### 2.3.20 User Preferences

**Problem:** Users indicated that it was difficult to develop and manage multiple sets of user preferences.

**Solution:** Resolved. The user preference development interface was re-engineered to make the process more user-friendly. Existing user preferences can now be cloned with a single keystroke. Also, it is now possible to easily delete a set of user preferences.

### 3.0 Requirements And Implementation

PCC+ implementation is a complex process involving the installation of software on multiple servers as well as establishing network connectivity. The details of the installation process are well beyond the scope of this document, but they are described in excruciating detail in the PCC+ installation manual, a companion document. The installation requirements are outlined below.

- Kernel, version 8, patch 4 or later. Software is compatible with Kernel Part III.
- FileMan, version 21 or 22.
- Mandatory RPMS packages:
  - Health Summary—APCH V 2.0 through patch 07
  - PCC Data Entry—APCD V 2.0 through patch 07
  - IHS Utilities—XB V 3.0 through patch 08
- Optional (but recommended) RPMS packages:
  - Women's Health BW V 2.0 through patch 07
  - Immunization—BI V 7.0
  - Medical Administration Service—MAS V 5.0 through patch 07 (Scheduling is part of MAS)
- **Print server:** A 500+ mhz PC with at least 120 meg ram, 3 GB hard drive, 10/100 Ethernet card. The print server must be able to run “off the shelf” copies of Microsoft Windows 2000 and Microsoft Office 2000.

**Note:** We strongly recommend installing a second (backup) print server with identical configuration.

- **Print Server software:** A licensed, “off the shelf” CD ROM copy of the Microsoft Windows 2000 and Microsoft Office 2000 for each print server. (Even though PCC+ has been successfully tested on Windows NT 4.0 and Office 97, we do not recommend these products and will not support them.).

**Note:** some hardware vendors such as Compaq pre-load their own proprietary versions of the Windows operating system on their computers. These machines are incapable of running “off the shelf” copies of Windows 2000. We cannot guarantee that proprietary versions of Windows 2000 will be compatible with the PCC+ application. Therefore, we do not recommend their use and

will not support them. PCC+ will NOT operate properly with Office 98 or Office XP (Office 2002).

- **Connectivity freeware for the Print Server:** VNC (remote control software) and WS-FTP (FTP service).
- **Printer(s):** HP 1100 - 5000 series with at least 5 meg of on-board RAM. Duplex printing capability is supported but not required. Network printers (direct network connection to a printer with a static IP address via NIC card) are supported but not required.

**Note:** Other laser printers capable of 600 dpi and 12+ ppm can be used but our experience with non-HP printers has been unsatisfactory. Ink jet printers should not be utilized in live clinical environments.

- **Network:** PCC+ has been developed and certified on NT networks. Version 1.2 is theoretically compatible with Novel Netware, but it has not been tested or certified in this environment. Netware users can access printers directly by installing a NIC card in each PCC+ printer as described late in this manual.
- **LAN connectivity:** A 10 meg LAN will suffice in the majority of cases, but a 100 meg LAN is preferred.
- **WAN connectivity:** Must be able to provide FTP and Telnet access to the local RPMS server and print server within the IHS firewall. If multiple sites are connected to a single print server over the WAN, the minimum recommended throughput speed is 256KB, bi-directional. Faster speeds (greater than 640KB) are recommended.



## 4.0 Understanding and Maintaining PCC+ Processes

This section describes in detail how to maintain the five processes required to generate PCC+ documents: encounter forms, health summaries, and outguides.

- Check-in
- Data Extraction on the RPMS server
- Data Transmission to the print server (print daemon)
- Document Generation (print service)
- Document spooling and printing (Windows Print Spooler)

These are five separate but interdependent processes that communicate with each other. The check-in process is a live, foreground process. The other four operate in the background. The check-in process, data extraction process and print daemon operate on the RPMS server under the UNIX or Windows NT operating system. The PCC+ print service operates on the print server under the Windows 2000 operating system. The print daemon and print service run continuously in the background. The check-in process is started by a menu option and continues to run until the dialogue times out. The data extraction process runs intermittently whenever a patient is checked in. The print daemon starts automatically when a patient is checked in. The print service starts automatically when the print server boots up. The Windows print spooler operates whenever a print job is initiated within a Windows application such as Word. If a recoverable error occurs in any of the background processes, an error message is filed in the PCC+ error log. The message is also passed to the only foreground process available, the check-in dialogue, where the check-in clerk is notified of the problem.

PROCESS	FUNCTION	JOB TYPE	SERVER	START and STOP	OPERATING MODE	ERROR HANDLING
Check in (^VENPCC)	Check-in dialogue. Clerk gets information about patient, provider, clinic, encounter form, and health summary.	Foreground	RPMS server running under UNIX or NT	Start: Menu option Stop: "^" or time out during check-in dialogue	Continuously cycles unless the dialogue times out or user types "^"	Directly displays its own error messages
Data Extraction (^VENPCC1)	Extracts data for customized forms from the PCC and PCC+ files and creates data file for mail merge.	Background	RPMS server running under UNIX or NT	Initiated by the check-in process. Stops on its own when finished	Intermittently extracts data for one patient then quits until the next patient checks in	Transmits error messages to the check-in process for display
Print Daemon (^VENPCCP)	Packages and ships data files to the print server.	Background	RPMS server running under UNIX or NT	Initiated by the check-in process Stop: menu option	Continuously checks for new data files	Transmits error messages to the check-in process for display

PROCESS	FUNCTION	JOB TYPE	SERVER	START and STOP	OPERATING MODE	ERROR HANDLING
Print Service	Receives, unpacks and validates data files. Runs Word mail merge and sends the print job to the appropriate printer.	Background	Print server running under Win 2000	Starts automatically when the print server is booted. Stop via windows command	Continuously listens for data files	Transmits error messages to the check-in process for display
Windows Print Spooler	Print buffer for all Windows print jobs	Background	Print server running under Win 2000	Starts automatically whenever a Windows app initiates a print job	Intermittently runs whenever print jobs are initiated	Transmits error messages to the check-in process for display

The first four processes—including methods for monitoring and troubleshooting—are described in detail below. The fifth process, the Windows Print Spooler, is described in the Microsoft Windows documentation.

## 4.1 Assigning Menus And Keys

The menu option VEN\_PRINT and the key VENZPRINT should be distributed to all check-in clerks and health professionals that may need to print encounter forms or health summaries. The option VEN MONITOR CHECK-IN QUEUE should be distributed to all medical records personnel. The key VENZSCH should be given to clerks who are using the scheduling package to check patients in. The SDZPCC key must be assigned to the site manager to setup the scheduling clinic for PCC+. <sup>1</sup>

## 4.2 Check-in

The standard check-in process (CIP) is described from an operational perspective in the users guide. From a technical perspective, the check-in process is one of several events that have the ability to start a background data extraction job on the RPMS server.

When a patient is checked in, a visit is created—except in four special circumstances:

1. The patient's last name is Demo.
2. Demo mode was selected from the print service menu.
3. The same patient has checked into the same clinic during the past six hours.
4. The reprint option is selected from the print service menu (should only be available if the PCC+/IHS Scheduling package link has been activated).

The new visit is technically a “visit stub” since some required visit fields may be incomplete. At the same time the visit is created, a visit control number (VCN) is also generated. The VCN is used for billing purposes, and it is stored in the VISIT file in field number 9000000. At this time, the VEN QUEUE file is also updated.

If a visit is created, the check-in clerk will have the opportunity to update patient demographics, insurance coverage, and employment data. If the check-in clerk edits

<sup>1</sup> This section was revised 6/25/02. See correction number 1 (section 1.0) for more information.

this information, the PCC database will be immediately updated to reflect the changes, and all revised information will appear on the printed forms. The check-in clerk can update a patient's demographics without generating a PCC+ form or creating a visit by selecting the Update Demographics Only (UP) option on the print menu.

#### 4.2.1 The Standard Check-in Process

The standard PCC+ check-in dialogue is documented in the users manual. The code that drives this dialogue is stored in ^VENPCC. This routine has multiple entry points.

ENTRY POINT	DESCRIPTION	CALLED BY OPTION
CKIN	Main entry point for standard check-in.	VEN PRINT ALL
DEBUG	Entry point for debugging. No visit created. No background tasks.	Only called in programmer mode
NOTASK	Entry point for debugging. Forces all tasks to be carried out in the foreground. Background processing is disabled. No visit created.	Only called in programmer mode
DEMO	Entry point for debugging. No visit created.	VEN PRINT DEMO
EFONLY	Print Encounter Form and Outguide but no Health Summary.	VEN PRINT ENCOUNTER FORM
HSONLY	Print Health Summary only, no Encounter Form or Outguide.	VEN PRINT HEALTH SUMMARY
OGONLY	Print Outguide only.	VEN PRINT OUTGUIDE
CKONLY	Update patient demographics but do not check in the patient or generate forms. (Individual sites may protect this option with a local security key.)	VEN UPDATE DEMOGRAPHICS ONLY
REPRINT	Reprint a document. Only to be used with the IHS Scheduling Package.	VEN REPRINT FORM

#### 4.2.2 Monitoring the Standard Check-in Process

The check-in process can be monitored with the option VEN MONITOR CHECK IN QUEUE on the Managers Menu (see the users manual for more information). This option can also be added to the VEN\_PRINT menu and other user menus as needed. The option calls ^VENPCCMF, the print queue lister described in the users guide. This routine prints a list of patients who have checked in and are waiting to be seen. The list also shows waiting times.

Check-in information is stored in the VEN QUEUE file. This file provides the functionality of an electronic sign-in sheet. The file includes some general information like the patient's IEN and record number, the visit IEN, queue entry/exit timestamps, queue origin/destination, check-in clerk IEN, and queue type. The standard CIP usually produces two entries in the VEN QUEUE file: one for medical records to support the chart pulling process, and one for the destination department to support the patient preparation process. When the patients chart is pulled, or when the patient arrives at the destination clinic, the patients name can be removed from the check-in list by a user at that destination. In fact, an entry in the VEN QUEUE file is never actually deleted, but the value of the STATUS field is changed from PENDING to RESOLVED.

In order for the queue application to work properly, each clinic must have a corresponding queue type registered in the VEN EHP QUEUE TYPE file. Each

clinic may also have additional queues for triage and medical records. Queue types are maintained via the PCC+ clinic management utility described below.

### 4.2.3 Using the IHS Scheduling Package to Check-in Patients

Version 5.0. Patch 7 of the IHS Scheduling package contains its own check-in process. Under the right circumstances, this check-in process can be substituted for the PCC+ check-in process and will generate PCC+ Encounter Forms.

- The routine ^ASDV must be patched. The patch can be applied automatically as an option during the installation of PCC+ Version 1.2
- The IHS Scheduling package must be configured to create a visit and Visit Control Number for both regular check-ins and walk-in check-ins.
- The clerk who checks the patient in using the Scheduling package must hold a special key: VENZSCH.

If all three of these requirements are met, a special dialogue will be interposed within the regular Scheduling package dialogue. When the user completes this dialogue, an encounter form will be printed on the designated printer. The health summary and outguide will be generated by the IHS Scheduling package in the usual way bypassing the standard PCC+ check-in process. Note that this alternative process will only generate a PCC+ encounter form. The health summary and face sheet are generated in the usual way by the scheduling package. It is not possible to print a PCC+ health summary in version 1.2 if check-in is done via the scheduling package.

```
Want to print PCC+ forms? YES// Y
Clinic: PEDIATRICS
Encounter form: CROW - PEDIATRICS
Submitting request for the PCC+ encounter form..
```

*Figure 4-1: Form Printing*

### 4.2.4 Support of Alternative Check-in Processes

PCC+ is designed so that alternative check-in processes can initiate the data extraction process and generate Encounter Forms. For example, sites that use the CIP from Informatix Laboratories Billing package, can configure their system to integrate with PCC+. Also, a prototype Visit Planning/Triage module has a CIP that integrates with PCC+.

### 4.2.5 Check-In Process: Common Questions and Trouble Shooting

**Q: How do I initiate the check-in process?**

**A:** Select the All option (VEN PRINT ALL) on the VEN\_PRINT menu.

**Q: How do I monitor the check-in process?**

**A:** Select the QUEUE option to view the current check-in queue. Users can also directly run the routine ^VENPCCMF. To exit the routine, type the up-hat (^) and press the Return key.

**Q: What is the best way to teach new users about the CIP?**

**A:** Select the DEMO option on the VEN\_PRINT menu. This enables the user to run through the entire CIP and print documents for any patient without creating a visit. Users will not be able to edit patient demographics in DEMO mode.

**Q: What should be done if the check-in process does not allow me to edit demographic data?**

**A:** Be sure the configuration parameter EDIT DEMOG DURING CKIN is set to YES. Remember that this functionality is not available in DEMO mode. Finally, be sure that you have all necessary PCC files and routines. Run the PCC+ environment checker, ^VENPCCME.

**Q: Is there a check-in process that does not require me to select a clinic?**

**A:** At sites where only one clinic is using PCC+, this question may be bypassed. Check the PCC+ configuration parameter UNIQUE CLINIC.

**Q: What if the check-in process does not allow me to select an encounter form?**

**A:** If the user selects the option VEN PRINT HEALTH SUMMARY the local variable HSONLY is set to "1." This bypasses the encounter form question and prints only a health summary. This question is also bypassed if the VISIT PLANNING module (a prototype application not available with PCC+ V. 1.2) is active or if the Scheduling package is used for check-in.

**Q: The check-in process does not ask me if I want to print an outguide.**

**A:** If the user selects the option VEN PRINT HEALTH SUMMARY, or if the configuration parameter ASK TO PULL CHART is set to NO, the outguide question will be bypassed. Also, the outguide will not print if the Scheduling package is used for check-in. The face sheet can be printed instead.

**Q: Can I bypass the outguide question in the check-in process?**

**A:** You can globally block this question by setting the ASK TO PULL CHART parameter in the VEN EHP CONFIGURATION file to YES. You can block the outguide question for individual clinics by setting the NEVER PRINT OUTGUIDE parameter to YES in the VEN EHP CLINIC file.

**Q: The encounter form is lost. What do I do now?**

**A:** Just repeat the check-in process. As long as the process is repeated within six hours of the initial request, a new visit will not be created. Visits are not created if the same patient is checked in to the same clinic within a six-hour period.

**Q: The check-in clerk saw an error message displayed in the check-in dialogue.**

**A:** If the print service encounters an error, it will usually send a message back to the CIP. When the clerk attempts to check-in the next patient, this message will be

displayed his/her screen. Most often the message will be the “PRINTER OUT OF PAPER” message. The clerk should always write down the message and immediately take appropriate action.

**Q: The check-in process seemed to go OK, but no forms were printed.**

**A:** The most likely cause is a printer problem (e.g., printer out of paper, printer out of toner, printer (or its host computer) has been turned off or disconnected, or cables are loose). Check these things first. The next most likely cause is a network problem. Try printing a test page on the printer. On the print server, click Start > Settings > Printers. Then right click the printer in question and click the Print Test Page option. If this fails, reboot the print server and turn the printer off then on again. Another possibility is a data extraction error. These are recorded in the PCC+ Error Log file VEN EHP ERROR LOG. The last possibility is a print service problem. See section 7.2 of this manual for a complete discussion of the print service. As a last resort, check the error log of the M operating system (for Micronetics systems D ^%ER). If an error is present that that you suspect may relate to PCC+, call Tech Support.

**Q: How do I print forms outside of the check-in process?**

**A:** Occasionally, providers, and nurses need to print encounter forms and health summaries on an ad hoc basis outside of the clinic. For example, a physician may want to print an encounter form in his/her office to record the results of a telephone encounter. Use the options on the print menu (EF,HS, and OG) to print individual documents without running the CIP.

**Q: When I print a check-in list, it doesn't contain any names. What should I do?**

**A:** Verify that the MEDICAL RECORDS clinic is set up.

**Q: I am not able to reprint a form. What should I do?**

**A:** Verify that the MEDICAL RECORDS clinic is set up.

**Q: The scheduling package will not ask which PCC+ clinic to print. Why not?**

**A:** If there is only one PCC+ clinic with a clinic code that matches the clinic stop in the Scheduling clinic, PCC+ will recognize this and will not prompt your for a PCC+ clinic.

**Q: The check-in process does not seem to be recognizing duplicate check-ins, and, as a result, duplicate visits are being created.**

**A:** If a patient checks into a clinic more than once within a six hour period, all additional check-ins should be treated as duplicates and no additional visits will be created. If the dup checker fails, follow this procedure. First, be sure that the patient is indeed being repeatedly checked in to the exact same clinic. If this is true, then there is a problem with the VEN EHP QUEUE file. The dup checker uses the information in this file to identify duplicate PCC+ requests. The most likely problem is that there is no queue type for the designated clinic, so no entry will be made in the VEN QUEUE file. Check field 1.1 (DESTINATION QUEUE

TYPE) in the VEN EHP CLINIC file to be sure that there is an entry in this field for the clinic in question.

**Note:** The medical records queue type is only used by the dup checker if an outguide is requested. If no outguide is requested and the designated clinic is not assigned to any other queue types, the dup checker will fail.

**Q: Can the VEN QUE file be used to generate management reports?**

**A:** Yes. The VEN QUEUE file can be an important source of information about workload and patient flow. It also serves as an audit trail for coding, billing, and clinical follow up. Remember that all patient encounters produce a double entry, so that you need to sort by QUEUE TYPE to generate a non-redundant report (Figure 4-2). A preformatted report can be generated by selecting the option VEN PRINT CHECKIN LIST on the VEN\_PRINT menu.

```
Select OPTION: 2 PRINT FILE ENTRIES

OUTPUT FROM WHAT FILE: VEN QUEUE//
SORT BY: TIME IN// TIME IN <-You must type the words "TIME IN" don't just hit
<Enter>...
START WITH TIME IN: FIRST//
WITHIN TIME IN, SORT BY: @QUEUE TYPE <- Be sure to put a "@" before the
field name
START WITH QUEUE TYPE: FIRST// MEDICAL RECORDS
GO TO QUEUE TYPE: LAST// MEDICAL RECORDS
WITHIN QUEUE TYPE, SORT BY:
STORE IN 'SORT' TEMPLATE:
```

*Figure 4-2: Management Reports*

## 4.3 Extract Data

This section discusses how to initiate the data extraction process, how to extract data for Encounter Forms and Health Summaries, and how to monitor/troubleshoot the data extraction process.

### 4.3.1 Initiating the Data Extraction Process

VENPCC and potentially many other routines can initiate the PCC+ data extraction process. The secret is that PCC+ passes parameters, either in foreground via a direct call or in the background via TaskMan, to the entry point PRINT^VENPCC1. The performance of the check-in process is improved ten fold by making the call as a background job, and this is the default mechanism of action. A foreground call to PRINT^VENPCC1 should only be used for debugging purposes (Figure 4-3).

```
PRINT (VISIT,VCN,DEPTIEN,PRV,DEFEF,DEFHS,APPT,VARS,EXT) ; EP-PRINT ENCOUNTER
FORM
```

*Figure 4-3: Data Extraction Process*

The next table summarizes the parameters. The “\*” signifies a mandatory parameter.

PARAMETER	DESCRIPTION
VISIT*	The visit IEN
VCN*	The Visit Control Number associated with this visit
DEPTIEN*	The department where the patient will be seen. An IEN from the VEN EHP CLINIC FILE
PRV*	The provider’s IEN from the NEW PERSON file
DEFEF	The Encounter Form IEN from the VEN EHP EF TEMPLATE file
DEFHS	The Health Summary type IEN from the HEALTH SUMMARY TYPE file
APPT	If IHS Scheduling package is in use, APPT contains the appointment date and time
VARs*	See table below
EXT	Reserved for future use. Null string

The parameter VARs is used to pass environmental information to the background data extraction job. It is a delimited string in the format:

variable\_1=value\_1^variable\_2=value\_2^...^variable\_n=value\_n

For example:

DUZ=64^DUZ(0)=”M”^DUZ(2)=2456^...

The content and order of the variables within the string does not matter. Any local variable can be passed within the string. The variables passed by VENPCC, the PCC+ check-in routine, are shown below. The “\*” signifies mandatory variables that must be passed to a background job.

PARAMETER	DESCRIPTION
DUZ*	User IEN
DUZ(0)*	User’s FileMan access code
DUZ(2)*	Location IEN
DT*	FileMan date
DTIME*	FileMan Read Timeout
JOB*	\$J of the job that sends the data string
NOTASK	Foreground mode: 1=YES, 0=NO
VENDEMO	Demo mode: 1=YES, 0=NO
EFONLY	Flag: 1=Only print Encounter Form and Outguide
HSONLY	Flag: 1=Only print health summary



OGONLY	Flag: 1=Only print Outguide
PGRP	Printer group IEN from the VEN EHP PRINTER GROUP file

After parameters are passed to the PRINT^VENPCC1 entry point, the data extraction process is carried out without any additional user intervention, and no messages are displayed on the screen. If an error should occur – most often due to a corrupt PCC database – it is recorded in the PCC+ error log file, VEN EHP ERROR LOG. In the unlikely event that the PCC+ error trap fails, the error is trapped in the Micronetics error trap and can be accessed by ^%ER. If the data extraction process is successful, each visit yields up to three new text files. These files are temporarily stored in the PCC+ print directory. The file names are determined by a PCC+ convention: a single letter followed by an integer followed by “.txt.” The letter refers to the type of data collected: “e” or “E” = encounter form data, “h” or “H” = health summary data and “g” or “G” is outguide data. The integer is the visit IEN, and the same number is used for all three files in the set. The file types is “.txt,” a text file.

Occasionally you may find a file in the print folder that has the letter “Z” appended to the front of its name. This indicates that the file could not be transmitted to the print service and is being held in abeyance until the underlying problem is fixed (e.g., until the printer is reloaded with paper). Very rarely, a “Z” file may contain corrupt data that causes the print service to crash every time re-transmission is attempted. For example, the print service of PCC+ version 1.1 would crash if certain non-printable characters were imbedded in the data file. (This problem has been fixed in version 1.2). The symptom was a “Z” file that repeatedly caused the print service to crash. The immediate solution: Delete all “Z” files from the print directory by selecting the RESET/RESTART option on the PCC+ manager’s menu.

If the Triage package (a prototype extension to PCC+) is being used in test mode, files beginning with “tt” may be found in the print directory. These are redundant encounter form data files that cause encounter forms to be printed in BOTH medical records and the clinic.

### 4.3.2 Extracting Data for Encounter Forms

Data extraction for the Encounter Forms is managed by the VENPCC1\* routines. Patient demographics, insurance information and a standard set of clinical details are drawn from the PCC database. Whenever possible, identical code is used by the Health Summary generator (APCHS\*) and Encounter Form data extractor. This helps assure that both documents will contain exactly the same information and avoids ambiguity for end users.

The extraction process involves three steps: import the header file, extract and temporarily store the data, generate the data file.

#### **Import the Header File**

The mail merge header file, efheader.txt, is opened using the %ZISH command. The entire document is 5-10KB in length and consists of a series of mail merge field

names separated by a caret (^) delimiter. (See Figure 4-4 to view a portion of the efheader.txt file or see Appendix A (section 12.0) to review the entire file.)

```
FieldName1^FieldName2^...FieldNameN

header^template^group^printer^patient^chart^dob^agesex^tribe^ssn^community^pr
ovider^timestamp^elig^grav^.....
```

Figure 4-4: Import the header file. Portion of efheader.txt.

After being moved to the MUMPS environment, the document is stored in a local variable X. The X variable is parsed to create a temporary global array containing all the field names and their delimited string positions (Figure 4-4).

```
^TMP("VEN PRNT",$J,9,AccessionNumber)=FieldName.
```

```
^TMP("VEN PRNT",2,9,1)="header"
^TMP("VEN PRNT",2,9,2)="template"
^TMP("VEN PRNT",2,9,3)="group"
^TMP("VEN PRNT",2,9,4)="printer"
^TMP("VEN PRNT",2,9,5)="patient"
^TMP("VEN PRNT",2,9,6)="chart"
etc....
```

Figure 4-5: Import Header File

The accession numbers represent the position of the field in the delimited string; e.g., the first field in the string is “header,” the second is “template,” etc. (Figure 4-5).

Later in the process, this array will be used to create all the fields the mail merge data file. By parsing the actual header file to create the data file, we employ a failsafe mechanism to ensure that these two documents are always “in sych”; i.e., they will always contain exactly the same number of fields. (If these two documents did not have the same number of fields, the mail merge would crash and the print server would lock up.) For example, if someone were to remove or add several header file fields just before the data extraction process took place, the process would still have a valid outcome, and the mail merge would run successfully.

### Extract Encounter Form Data

The next step is to extract the data for the encounter form. This is carried out in the VENPCC1\* routines. This code extracts values, associates each value with a field name, and stores the results in a temporary global array (Figure 4-6).

```

^TMP("VEN PRNT",2,1,"agesex")="40 y/o female"
^TMP("VEN PRNT",2,1,"b27")="No record of 3rd party eligibility..."
^TMP("VEN PRNT",2,1,"chart")="100003"
^TMP("VEN PRNT",2,1,"clinic")=""
^TMP("VEN PRNT",2,1,"community")="SELLS"
^TMP("VEN PRNT",2,1,"dob")="NOV 10,1960"
^TMP("VEN PRNT",2,1,"elig")="DIRECT ONLY"
^TMP("VEN PRNT",2,1,"group")="CROW_WALKIN"
^TMP("VEN PRNT",2,1,"header")="ef"
etc.....

```

Figure 4-6: Temporary Global Array

The following table shows what fields are extracted and the associated data extraction entry point in VENPCC1\*.

Item Type	Fields	Entry Point	File
Active Problems and Recent POVs	p1-p20 (narrative) p1c-p20c (ICD9 codes)	PROB^VENPCC1B	V POV
Allergies	a1_a5	ALLERG^VENPCC1C	V POV
Birth Information	lab1-2,grav,para,ab	BH^VENPCC1A	BIRTH MEASUREMENT
Demographic data	patient, chart, agesex, dob, ssn, tribe, community, elig	DEMO^VENPCC1A	PATIENT,IHS PATIENT
Female hx	lab1-2,grav,para,ab,fpm	SPEC^VENPCC1A	REPRODUCTIVE FACTORS
Health maintenance	h1=26	HMR^VENPCC1D	V LAB,V RADIOLOGY, V EXAM, V SKIN TEST, V IMMUNIZATION, V MED
Insurance information	b27	ELG^ABMDLCK	DEMO^AVENPCC1A, INS^VENPCC1C
Preferred diagnoses	d1-54	DX^VENPCC1B	VEN EHP ICD PREFERENCES
Prescriptions	md1-15,mq1-15,mm1-15,ms1-15, mr1-15 (date,qty,med,sig,remarks)	MED^VENPCC1B	V MED, PRESCRIPTION
Review of Systems	x1-15	SYS^VENPCC1C	VEN EHP TICKLERS
Visit information	chart, clinic. ven, timestamp, hdr. provider	DEMO^VENPCC1A	AUPNVSIT
<b>ORDERABLES</b>			
Diagnostic exams	e1-e20, e1a-e20a	SYS^VENPCC1	VEN EHP ORDERABLES
Imaging	r1-r25, r1a-r25a		
Immunizations	i1-i10, i1a-i10a		
Injections	s1-s20, s1a-s20a		
Lab	l1-l20, l1a-l20a		
Patient education	y1-y20, y1a-y20a		

Supplies	z1-z20, z1a-z20a		
Treatments	t1-t20, t1a-t20a		

A more detailed list of fields including the details of the health maintenance reminder fields can be found in Appendix C.

The data extraction process produces a data global array in the following format:

`^TMP("VEN PRNT", $J, 1, FieldName)=Value`

```
^TMP("VEN PRNT", 4, 1, "a1")="ALLERGIC TO PEN V-K"
^TMP("VEN PRNT", 4, 1, "ab")="SA 1          TA 0"
^TMP("VEN PRNT", 4, 1, "agesex")="46 y/o female"
^TMP("VEN PRNT", 4, 1, "b27")="No record of 3rd party eligibility..."
^TMP("VEN PRNT", 4, 1, "chart")="100018"
^TMP("VEN PRNT", 4, 1, "clinic")=""
^TMP("VEN PRNT", 4, 1, "community")="SELLS"
^TMP("VEN PRNT", 4, 1, "d1")="Abdominal pain"
^TMP("VEN PRNT", 4, 1, "d10")="Bronchitis acute"
^TMP("VEN PRNT", 4, 1, "d10c")="466.0"
^TMP("VEN PRNT", 4, 1, "d11")="Cellulitis right lower leg"
^TMP("VEN PRNT", 4, 1, "d11c")="682.6"
^TMP("VEN PRNT", 4, 1, "d12")="Chronic low back pain"
^TMP("VEN PRNT", 4, 1, "d12c")="724.2"
```

Figure 4-7: Data Global Array

The first four header fields do not contain patient data. Rather, they are required parameters that are passed to the print service.

- **header:** the header file mnemonic, “ef”
- **template:** the print template mnemonic; e.g., “wic”
- **group:** the name of the print group that will print the final document; e.g. CROW\_MEDICAL RECORDS
- **printer:** environmental parameters required for the background print process; e.g. the DUZ array

### Creating the Data File

The data file creation process is the reverse of the header file importation process described in this manual. A global array is converted to a long delimited string. The string is then converted to a file stored in an HFS directory. The details are shown below.

1. \$O through the header field global to get individual fields numbers and names.

```

^TMP("VEN PRNT",2,9,1)="header"
^TMP("VEN PRNT",2,9,2)="template"
^TMP("VEN PRNT",2,9,3)="group"
^TMP("VEN PRNT",2,9,4)="printer"
^TMP("VEN PRNT",2,9,5)="patient"
^TMP("VEN PRNT",2,9,6)="chart"
^TMP("VEN PRNT",2,9,7)="dob"
^TMP("VEN PRNT",2,9,8)="agesex"
etc....

```

Figure 4-8: Creating the Data File, Step 1

2. Create a new global, the “data global” in the following format:

```
^TMP("VEN PRNT",$J,8,FieldNumber)=""
```

```

^TMP("VEN PRNT",2,8,1)="ef"
^TMP("VEN PRNT",2,8,2)="wic"
^TMP("VEN PRNT",2,8,3)="CROW_WALKIN"
^TMP("VEN PRNT",2,8,4)=" "
^TMP("VEN PRNT",2,8,5)="DIANE ROBERTS"
^TMP("VEN PRNT",2,8,6)="100018"
^TMP("VEN PRNT",2,8,7)="OCT 30,1954"
^TMP("VEN PRNT",2,8,8)="46 y/o female"

```

Figure 4-9: Creating the Data File, Step 2

- Check the extract global to see if there is a value associated with that field name.
  - If there is a value associated with the field name, assign that value to the data global.
  - If there is no value associated with the field name, assign the data global a value of “null.”
3. Convert the data array into a file that can be transmitted to the PCC+ print service. The subroutine TXT^VENPCC1 validates the data global and makes corrections if necessary (e.g., illegal characters are removed, strings are truncated if they are excessively long). Then the data global is converted to a long delimited string that looks like the one shown below.

```
ef^wic^CROW_WALKIN^70903;5;4585;168^DAVID GRANT^100562^SEP 10,1960^...
```

Using %ZISH, this string is then saved as a text file in a HFS directory. The location of the print directory depends on the operating system:

**Windows NT/2000:** c:\ilc\print\

**UNIX:** /usr/pccplus/print/

The file name is ennnn.txt where nnnn is the visit IEN; e.g., e12345.txt.

In the next section, you will learn how a similar process is used to extract data to produce a health summary.

### 4.3.3 Extracting Data for the Health Summary

Data extraction and formatting for the health summary is managed by the VENPCC2\* routines. First, a classic PCC health summary is generated. Instead of printing the document on paper, it is saved as a text file in a HFS directory. This file is imported into the MUMPS environment, parsed to determine content, reformatted for display in a GUI environment, and finally saved as a mail merge text file in another HFS directory. The details are described below.

#### Capture a Health Summary as a MUMPS Global

During the PCC+ check-in process, the clerk selects a health summary type, and the IEN from the HEALTH SUMMARY TYPE file is saved in the local variable DEFHS. This IEN along with the patient DFN is used to generate a health summary in the background. Instead of generating the document on a printer, the output is redirected to an HFS file. The naming convention for this file is Tnnn.txt; e.g. T12345.txt where nnn is some unique identifying number –typically the visit IEN for that encounter. The file is stored in the temp directory on the RPMS server.

**Windows:** c:\ilc\temp

**UNIX:** /usr/pccplus/temp

The file is then imported back into the MUMPS environment and stored in a global array:

`^TMP("VEN HS",$J,0,n)= TextLineN`

```
^TMP("VEN HS",2,0,1)="
^TMP("VEN HS",2,0,2)="***** CONFIDENTIAL PATIENT INFORMATION -- FEB 21,2001
11:02 PM [GIS] *****"
^TMP("VEN HS",2,0,3)="***** ROBERTS,DIANE #100018 (ADULT REGULAR
SUMMARY) pg 1 *****"
^TMP("VEN HS",2,0,4)="
^TMP("VEN HS",2,0,5)="----- DEMOGRAPHIC DATA -----
-----"
^TMP("VEN HS",2,0,6)="
^TMP("VEN HS",2,0,7)="ROBERTS,DIANE DOB: OCT 30,1954 46
YRS FEMALE AB+"
^TMP("VEN HS",2,0,8)="TOHONO O'ODHAM NATION OF ARIZONA SSN: 000-53-0005"
^TMP("VEN HS",2,0,9)=" MOTHER'S MAIDEN NAME:
ROBERTS,BETTY"
^TMP("VEN HS",2,0,10)="(H) 602-555-0005 (W) 602-234-2221 FATHER'S NAME:
ROBERTS,HANK"
^TMP("VEN HS",2,0,11)="SELLS (499 E. 1ST AVE,PHOENIX,AZ,88776) "
```

Figure 4-10: Capture a Health Summary as a MUMPS global

**Reformat the Health Summary for a GUI Environment.**

The traditional PCC Health Summary uses character-based formatting and typewriter style (non-proportional) fonts. The new health summary uses GUI formatting and shading. Formatting is accomplished in ^VENPCC2.

**Generate the Health Summary Header String**

The contents of the Health Summary data file must correspond to the health summary header file, hsheader.txt. (A copy of hsheader.txt is shown in Appendix A.) The entire document is 5-10KB in length and consists of a series of mail merge field names separated by a caret (^) delimiter.

```
HEADER^TEMPLATE^GROUP^PRINTER^H1^H2^S1^S101^S102^S103^S104^S105^S106^S107^S108^S109^S110^S111^S112^S113^S114^S115^S116^S117^S118^S119^S120^S121^S122^.....
```

*Figure 4-11: Portion of hsheader.txt*

The following field naming conventions apply to the health summary header file:

- All health summary fields' names use capital years. This is in direct contrast to encounter form field names that use lower case letters.
- The first four header field names are the same as those used for the encounter form except they are capitalized: HEADER, TEMPLATE, GROUP, and PRINTER.
- The last field name is FOOTER
- All the rest of the header names begin with the letter "S."
- Health summary component labels (e.g., "---DEMOGRAPHIC DATA ---", "---INSURANCE INFORMATION ---") are stored in headers Sn or Snn where n/nn is a number from 1 – 25; i.e., S1, S2, ...S25.

The lines of text beneath the health summary labels are stored in headers Snnn or Snnnn where the last two digits are a 2-digit number from 01 – 50 and the first 1 or 2 digits are the component number used for the label. For example S101 is the first line of text under the first header (S1), S150 is the fiftieth line of text under the first header (S1), and S2501 is the first line of text under the twenty-fifth header (S25). Altogether there are 25 X 50 or 1250 field names that begin with "S."

The contents of the health summary header file are recreated via a short series of simple computations (see EXP^VENPCC2), and this information is used to create a temporary global array containing all the field names and their delimited string positions.

^TMP("VEN PRNT", \$J, 1, AccessionNumber) = ComponentName.

^TMP("VEN PRNT", \$J, 2, AccessionNumber) = FieldName.

```

^TMP ("VEN HS",2,1,5)="DEMOGRAPHIC DATA"
^TMP ("VEN HS",2,1,21)="ALLERGIES"
^TMP ("VEN HS",2,1,26)="MEASUREMENT PANELS (max 5 visits or 2 years)"
^TMP ("VEN HS",2,1,33)="HISTORY OF SURGERY"
^TMP ("VEN HS",2,1,37)="HOSPITALIZATION STAYS (max 5 visits or 5 years)"
^TMP ("VEN HS",2,1,40)="OUTPATIENT/FIELD VISITS (max 10 visits or 2 years)"

^TMP ("VEN HS",2,2,"S1")="DEMOGRAPHIC DATA"
^TMP ("VEN HS",2,2,"S10")="CURRENT MEDICATIONS (max 1 year)"
^TMP ("VEN HS",2,2,"S1001")="."
^TMP ("VEN HS",2,2,"S101")="ROBERTS, DIANE                      DOB: OCT 30,1954
46

```

Figure 4-12: Generate the Health Summary String

The accession numbers represent the position of the field in the delimited string; e.g., the first field in the string is “header”, the second is “template”, etc. The first four fields are similar to those used for the encounter form.

- **header:** the header file mnemonic, “hs”
- **template:** the print template mnemonic; i.e., “hs2”
- **group:** the name of the print group that will print the final document; e.g. CROW\_MEDICAL RECORDS
- **printer:** a semi-colon delimited sting containing information for the background print job:

visit IEN; provider IEN from file 200;the local institution IEN;patient DFN.

### Create the Health Summary Data File

The last step in the data extraction process is to create a text file that contains the extracted data and store this file in the HFS. The global array is parsed and converted to a data string with up-arrow delimited pieces that correspond exactly to the up-arrow pieces of the health summary header file. Using %ZISH, this string is then saved as a text file in a HFS directory. The location of the print directory depends on the operating system:

**Windows NT/2000:** c:\ilc\print\

**UNIX:** /usr/pccplus/print/

The file name is hnnnn.txt where nnnn is the visit IEN; e.g., h12345.txt.

In the next section, you will learn how a similar process is used to extract data to produce a health summary.

## 4.3.4 Troubleshooting the Data Extraction Process

Experience with the PCC+ version 1.1 suggests that the data extraction process is rapid, robust, and reliable. Rarely, certain instances of PCC database corruption can produce errors. Typically, these errors are automatically documented and stored in



the VEN EHP ERROR LOG FILE. There is also the unlikely possibility that PCC+ will not handle the error gracefully and that the data extraction job will terminate with an error. Since the data extraction process runs in background, the errors are trapped by the operating system. Users of Micronetics operating systems can view the error trap with the ^%ER routine. Since virtually all data extraction errors are caused by PCC database corruption or by bugs in PCC+ itself, this kind of error should always be reported to ITSC support personnel.

**NOTE:** If the data extraction process fails with an error, no data file is created, and no documents are generated. To generate documents, correct the problem that caused the error and check the patient in again. A second visit will NOT be created, but forms are generated.

**Q:** How do I determine that the data extraction process has failed?

**A:** If the check-in process seems to run normally, but the documents fail to print, consider data extraction failure as a possibility. Printer and network problems are much more likely causes of this symptom.

**Q:** How do I monitor/debug the data extraction process?

**A:** One possibility is to run the process as a foreground job in debug mode. You can observe exactly when and how it breaks. To accomplish this, run the debugger from the check-in entry point NOTASK^VENPCC. Another possibility is to change the configuration parameter MONITOR DATA EXTRACTION to "YES." The data extraction runs in background, but the status of the extraction process is continuously relayed to a foreground process, namely the check-in dialogue. This slows down the check-in process since you have to wait for the data extraction to be completed before registering the next patient. However, this approach is useful for debugging on an ad hoc basis.

## 4.4 Transmit Data to the Print Server

The MUMPS routine ^VENPCCP (the PCC+ print daemon) manages the transmission of data files from the RPMS server to the print server. The print daemon is, by far, the most critical and complex routine in the entire PCC+ package. It insures that all data files are transmitted in a orderly, reliable manner, and it handles errors/problems gracefully. A companion routine, ^VENPCCMX (the print daemon monitor) can be used to examine the progress of the transmission. This section details the inner workings of the print daemon, the print daemon monitor, and related troubleshooting techniques.

### 4.4.1 The Data Transmission Process

The print daemon starts automatically in background mode via TaskMan whenever the check-in process (a foreground job) is initiated. It can also be started manually by

selecting the option VEM START PRINT DAEMON on the PCC+ Managers Menu. In normal operating mode, the print daemon runs continuously in the background looking for newly hatched data files to pop into the print subdirectory. Background processing is preferred because it does not slow down the check-in process.

When the print daemon finds a new data file, it breaks the file into smaller, easily transportable pieces that can fit comfortably into the transmission buffer of the local operating system. Then the print daemon opens the TPC socket of the RPMS server and makes initial contact with the print server via the LAN. When handshaking is complete, it sends a simple message, the word “START” to wake up the receiving process on the print server. A Visual Basic program, the PCC+ print service, runs in the background on the print server continuously listening for messages from VENPCCP routine on the RPMS server. When it “hears” the word “START”, it sends back an acknowledgement to the print daemon. Then the print daemon sends the pieces of the file—one at a time—across the network. Each time the print service listener receive a piece, it sends an acknowledgement back to the print daemon.

When the print daemon has successfully transmitted all the pieces, it sends the word “STOP” to the print service listener. This triggers the print service to reassemble the pieces of the file, initiate the mail merge process, and send back a final acknowledgement to the print daemon. If the transmission is successful, the print daemon erases the data file in the PCC+ print directory and starts looking for another data file to process. If the print daemon encounters an error; e.g., TCP connection failure or print service problem, it relays an error message to the check-in clerk, so that corrective action can be taken. These same error messages are displayed by the print daemon monitor described below. The error messages are also stored in the PCC+ error log.

The letter “z” is appended to the file name of any file that fails to be transmitted to the print service. These “z” files are held in abeyance in the print folder until the underlying problem is corrected. For example, suppose the PCC+ operates at several clinics within a facility. If a printer in one of the clinics runs out of paper, all data files to be transmitted to that clinic will be held back as “z” files until the paper supply is replenished. The clerk who checks in patients to the offending clinic will continue to receive nag messages until the problem is corrected. Data files headed for the other clinics continue to be processed normally.

After the data file has been successfully transmitted to the PCC+ print service, the data file is deleted from the print folder.

#### 4.4.2 The Print Daemon Monitor

The last section, detailed the steps the print daemon goes through to send a data file across the network:

1. Find the next data file.
2. Open the TCP socket.

3. Initiate contact with the print service and respond to the initial print service acknowledgement.
4. Break the data file into smaller pieces.
5. Send each piece to the print service and respond to the acknowledgements from the print service.
6. Close contact with the print service and respond to the final print service acknowledgement.
7. Close the TCP socket.
8. Return to step 1.

At each step, the print service updates the global ^TMP(“VEN TASK”, \$J) with a text string that describes the status of the current step. If the print daemon encounters an error, the global contains the error message. This global can be accessed at any time by a foreground process including the print daemon monitor. Only one ^TMP(“VEN TASK”) global can exist at any given time. If the print daemon is running, this global has a value that changes every few seconds. If the print daemon is stopped without error, the global is killed. If the print daemon stops with an error, the global contains the error message, and this value does not change until the print daemon is restarted. **If the global is killed, the print daemon stops.** In fact, killing the ^TMP(“VEN TASK”) global is the method that foreground processes like the print daemon monitor used to stop the background print daemon process.

The print demon monitor is in the routine ^VENPCCMX. The monitor is accessed via the menu option VEN MONITOR PRINT DAEMON. If the print daemon is already running, you see the text “Cycle #nnn” where nnn is an integer that is incremented every few seconds. If the print daemon is not operating, the print daemon monitor asks if you want to start it. Answer “YES,” and it starts cycling. To exit the monitor, press Enter. To stop the print daemon before exiting, press the up-arrow key and then press Enter.

An alternative way to monitor the print daemon is to view contents of the print folder immediately after a patient has checked in. The data files appear and disappear from the folder over the course of a minute or so.

#### 4.4.3 Troubleshooting the Print Daemon

At this point, it should be clear that the check-in process, the data extraction process, the print daemon and the print service are four separate processes that communicate with each other. The print daemon serves as an intermediary between the data extraction process and the print service. If a problem occurs during the check-in process, the user is immediately notified. The other three processes operate in the background. If an error occurs in any of them, the error is filed in the PCC+ error log. At the same time, an error message is passed via the ^TMP(“VEN TASK”, \$J) global to PCC+’s only live, foreground process, the check-in dialogue where it is displayed to the user.

**Q:** How do I start the print daemon?

**A:** If the print daemon is not running, it starts automatically whenever a patient is checked in. You can also start the print daemon manually with the menu options VEN MONITOR PRINT DAEMON or VEN START PRINT DAEMON. You can also do a direct calls from the M prompt:

D ^VENPCCMX or D START^VENPCCMX

**Q:** How do I stop the print daemon?

**A:** The print daemon can be stopped with the menu option VEN STOP PRINT DAEMON.

**Q:** How do I disable the print daemon?

**A:** For test purposes, the print daemon can be indefinitely disabled so that it is not automatically restarted by the check-in process. Set the configuration parameter BYPASS PRINTING to "YES." Be aware that if you set this parameter, the check-in process may continue to load data files into the print folder, and a significant backlog of files may develop.

**Q:** How do I debug the print daemon process?

**A:** First, stop the print daemon as shown above. Then set the BYPASS printing configuration parameter to YES. Look in the RPMS server's print folder to make sure at least one text file is waiting to be printed. If not, check in a DEMO patient. Next run the routine ^VENPCCP in debug mode. The following tags are useful for debugging.

VENPCCP TAG	DESCRIPTION
INIT	The Print Daemon is initialized. The IP address of the Print Server and the TCP socket are defined
OPEN	The TCP socket is opened. POP will have a numeric value if the opening was unsuccessful
CHK	If two Print Servers are used, this code splits the workload between them for purposes of load balancing. If a Print server is not functioning properly, the entire load is shifted to the active Print Server.
TRY	Establish contact with the Print Service. POP will have a numeric value if the contact was unsuccessful
START	Send a "START" message to the Print Service. The ACK (acknowledgement) local variable will = 1 if Print Service startup was successful. If ACK is not set to "1," the Print Daemon files an error message and quits.
LOOP	Each piece of the data file is sent to the Print Service. After each successful transmission of a piece, the Print Service sets the ACK variable to "1." If ACK

	is not set to "1," the Print Daemon files an error message and quits.
MERGE	After all pieces of the data file have been successfully transmitted to the Print Service, the Print Daemon transmits the word "STOP" and waits for an acknowledgement. If ACK = "0" the mail merge and printing was successful. <b>This is the most likely point of failure.</b> Error messages other than "0" are shown in the table below

PRINT SERVICE ACKNOWLEDGE MENT CODE	MESSAGE
1	Print Service successfully started or data file piece successfully received
0	Print Service successfully generated the document: mail merge + printing
-1	
-2	Printer problem: printer turned off, disconnected, or out of paper
-3	
-4	
-5	Print Service Busy
-6	
-7	
-8	
-9	

**Q:** How do I restart the print daemon if PCC+ errors out?

**A:** The print daemon serves as an intermediary between the data extraction process and the print service. Failure of either of these two processes causes the print daemon to file an error message and stop cycling. If the data extraction process fails, no data file is created. If the print service process fails, the data file is stuck in the print folder. For example, if the print daemon encounters a minor problem; e.g., the printer is out of paper, it sends an error message to the check-in clerk, but it allows the check-in process to keep running. Repeated print service failures may cause a major backlog in the print folder. The print service does not catch-up (i.e., documents waiting to be printed stack up in the print folder) until the problem is corrected.

If the print daemon has been out of commission for an extended period from a network or print server failure, the best approach is to fix the problem that cause the error and then directly call the line `RESTART^VENPCCMX` from the M prompt. This call not only restarts the print daemon, but it deletes all of the expired data files that have been stuck in the print folder. If you want to print all the files that are stuck in the print folder, take the following approach. First, correct whatever problem caused the print daemon to stop. Then select the menu

option VEN STOP PRINT DAEMON. Finally, then select VEN START PRINT DAEMON. This action will reset/restart the print daemon without loss of any files.

**Q:** When I monitor the print daemon, it seems to be stuck on one cycle number.

**A:** This means that the print daemon has stopped unexpectedly. Run the stop and start options to get rolling again.

## 4.5 Document Generation Via the PCC+ Print Service

The final step in generating documents is managed by the PCC+ print service. The Print service is a registered Window 2000 background process that listens for data files sent to the print servers TCP address. When the print server boots, the print service starts automatically. The print service runs continuously even if no one is logged in. In fact, for security reasons, you may want to leave the print server in its pre log-in state.

### 4.5.1 The Print Service Process

The print service takes the following steps to generate a document:

1. The PCC+ print service “listener” is a Windows 2000 service (a background job that starts automatically when the server is booted) that constantly monitors the print server’s TCP port number 5134 for a message from the print daemon.
2. When the print service receives the word “START,” it prepares itself to receive the pieces of the data file and sends an acknowledgement of “1” back to the print daemon. The word “START” is followed by a second up-arrow piece that contains the length in bytes of the data file. This value will be used to validate the data file after transmission is complete.
3. As each piece comes across the TCP port, the print service appends it to the end of a data file and sends an acknowledgement of “1” back to the print daemon.
4. When the print service receives the “STOP” message, it completes the final assembly of the data file and stores it in the directory c:\ProgramFiles\ILC\ILC Forms Print Service\Data\.
5. As soon as the data file is saved, the print service begins the mail merge process. The print service invokes Word functions via Visual Basic commands. Because the Word program is not actually started (instead its code is hijacked via a Microsoft Office Automation process), errors within Word are not handled gracefully. If an error is encountered during the mail merge process, the Word application “locks up.” The only way to restart the mail merge process under these circumstances is to reboot the print server. Fortunately, if PCC+ is set up correctly, this is a rare occurrence.

6. The data file, header file, form template triad is processed to yield the merged document. The following conventions apply. The header file mnemonic is the first up arrow piece of the data file. The mnemonic must be “ef” for the Encounter Form/Outguide header file or “hs” for the health summary header file. The second piece of the data file is the template mnemonic. The standard template that comes with PCC+ is wic\_template.doc, so the mnemonic in the case is “wic.” The third piece of the data file contains the Print Group name. The fourth piece contains environmental information passed by the print daemon that may be used for error processing or other purposes.
7. The print service concatenates the header file mnemonic (either “ef” or “hs”) with the text string “\_header.txt” to produce the name of the header file. The header file must contain two up-arrow delimited records. The first record contains the field names and the second record is blank; i.e., it contains only up-arrow field delimiters. Both records must contain the same number of field delimiters (i.e., they must each contain the same number of up-arrows) and the record delimiter (the character that separates the two records) must be the “Enter” key. The print service looks in the c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\ directory to find the header file. If the print service cannot find a file that matches the header file name, the process locks up. If the two records in the header file do not contain the same number of field delimiters, the process locks up. Even if the Word code locks up, the print service sends an error message back across the TCP connection that is displayed during the check-in dialogue and saved in the PCC+ error log. However no further documents can be printed until the problem is fixed and the print server is rebooted.

The final step is to send the merged document to the printer. The following conditions must be in effect.

- The print group name passed in the data file must match a print group name registered in the print service.
- The IP address of the target printer registered in the print service must be valid.
- The network must be functioning properly.
- The network connection to the printer must be functioning properly.
- The printer must be on-line.
- The printer must not be out of paper or toner.

Failure of any of the first three conditions may lock up the print service and require the print server to be rebooted. Failure of the last three conditions produces error messages and entries in the error log, but the print service continues to function properly.

## 4.5.2 Monitoring the Print Service

The print service can be monitored indirectly from the RPMS server or directly on the print server. On the RPMS side, acknowledgements from the print service are reflected in the text of the print daemon monitor's global array: ^TMP("VEN TASK",\$J,...The print daemon monitor routine, ^VENPCCMX, provides a continuous view of this global's ever-changing values. On the print server side, during set up, be sure to check the Verbose Logging box on the print service configuration screen:

c:\ProgramFiles\ILC\ILC Forms Print Service\IlcPrintSvcCfg.exe

To view the event log, log on as PRINT\_SERVICE-MGR. If you log on as Administrator or any other user, you cannot access PCC+ print service utilities. Click Start > Administrative Tools > Event Viewer > Application Log. Print service operations, including errors, will be entered in the log.

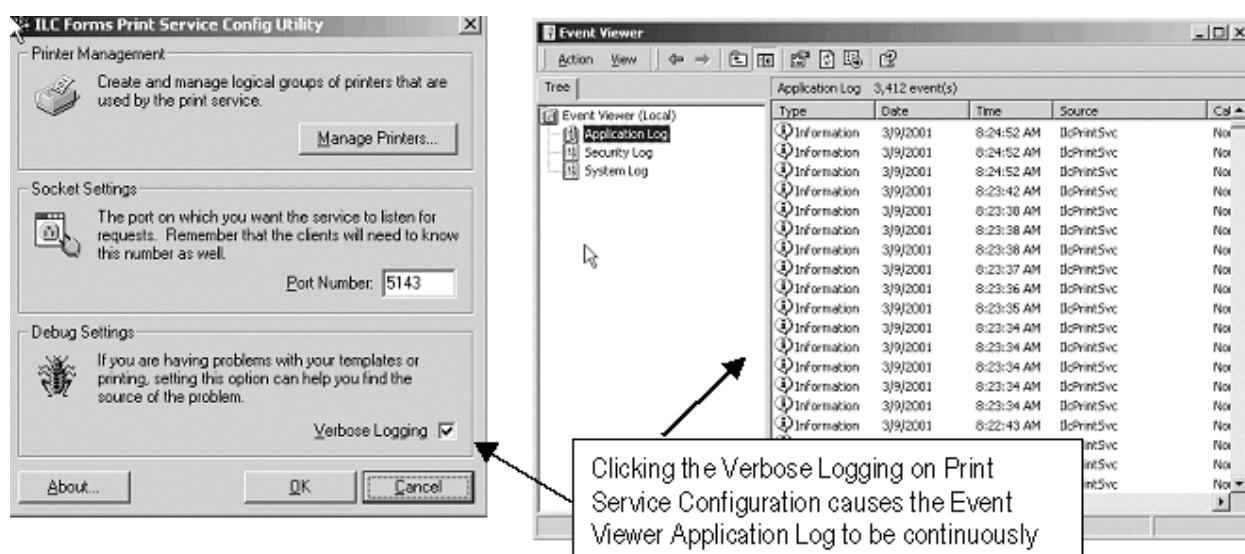


Figure 4-13: Monitoring the Print Service

## 4.5.3 Common Questions Regarding the Print Service

**Q:** After I boot the print server, how do I start the PCC+ print service?

**A:** The PCC+ print service is an “official” Windows 2000 Service, so it starts automatically whenever the print server boots up. Nothing more is required. Also note that the print service runs in background even if no one is logged on.

**Q:** I can't seem to access PCC+ resources on the print server.

**A:** Did you log on as the PRINT\_SERVICE\_MGR? If not, you are denied access to these resources.

**Q:** How do I stop the PCC+ print service?



**A:** Log on as PRINT\_SERVICE\_MGR. Click Start > Settings > Control Panel > Administrative Tools > Services. Right click on ILC Forms Print Service and finally click Stop.

**Q:** The print service stopped working and I can seem to get it started again.

**A:** All the major causes of print service failure are listed in section 4.4.3. Of these, only the first three or four causes are likely to lock up the Print Service. One reason that the print service locks up is that the PCC+ mail merge process does not run in the foreground. If Word code encounters an error during mail merge, the error is not handled gracefully and the mail merge process locks up. Once this happens, Word is unusable as either a foreground or background job. The only way to restart Word is to reboot the print server.

Also, a corrupt data file that cannot be merged may cause repeated print service failures. If the print service continues to lock up, you have to clean out the print folder on the PRMS server. This is accomplished by running the subroutine, RESTART^VENPCCMX. All data files are stored in c:\ProgramFiles\ILC\ILC Forms Print Service\Data\ . If the mail merge process is successful, the data file is automatically deleted from this folder. If the process is unsuccessful, the data file is retained in the folder for debugging purposes.

**Q:** I was able to restart the print service after it locked up. Is there anything else I need to do?

**A:** If you are using a backup print server, the print daemon will have redirected all jobs o this machine in an attempt to circumvent the problem. To utilize the primary print server again, stop the print daemon and then restart it using the menu options VEN STOP PRINT DAEMON and VEN START PRINT DAEMON on the VEN\_MGR menu.

**Q:** A particular data file seemed to break the print service. After rebooting and clearing the file, everything seemed to work fine. What do I do next?

**A:** Corrupt data files are rare, but they do occasionally occur. The corrupt file is retained in the data directory and is given a new name beginning with the prefix "RAD." Tech support will probably want to access this file for debugging purposes. Please notify them if the problem occurs.

**Q:** The printer was out of paper but the check-in clerk received no error message.

**A:** The "Out of paper" and "Out of toner" error messages are sent back to the device where the check-in process originated for that encounter. If that device is off line, no message will be seen by anyone unless they check the PCC+ error log.

**Q:** Everything was working well, but suddenly we got the error message, "Unable to access one of the print servers (xxx.xxx.xxx.xxx)."

**A:** Check the network connection to the offending machine, then reboot it and check the event log. This should get things going again and provide some clues for troubleshooting.

**Q:** Suddenly, all documents stopped printing. What is the best approach?

**A:** When encounter forms stop printing, invoke your back up plan. Most sites have a supply of “generic” forms available in the clinic. Once you have started using your back up plan, follow these steps.

Check the obvious things first. If only one printer is affected, make sure that the printer is on, not jammed, has plenty of paper and toner, and that all of the printer cables are connected. Then monitor the print daemon and check the PCC+ error log (VEN EHP ERROR LOG). If the RPMS program seems to be functioning correctly then check both print servers. Are they both running normally and do they have functioning network connections? Try running Word on both machines. Check the service logs on both machines to be sure that ILC Forms Print Service is marked “Started.” Check both event logs. You may also find a problem with the TCP connection between the RPMS server and one or both of the print servers. This would be reflected in the error log. Gather as much information as you can before calling tech support.

Once the problem is fixed, you have the choice of starting PCC+ (menu option VEN START PRINT DAEMON) or restarting PCC+ (DO RESTART^VENPCCMX). Starting PCC+ preserves all files in the print folder; i.e., all of them will print out on the appropriate printer. Restarting PCC+ flushes the document buffer, and all documents in the print queue are deleted.

## 5.0 System Maintenance

The following section describes new utilities and procedures for evaluating and maintaining PCC+. All of the new utilities require that version 1.3 or 1.4 of the PCC+ Print Service be installed on both print servers and that all servers have valid, working connections to the LAN.

### 5.1 Check the System Environment

For a thorough check up of your PCC+ system, type INS (Installation Utilities) at the "Select New Encounter Form Option:" prompt.

```

INS      Installation Utilities ...
MGR      Manager's Menu for Encounter Forms ...
PRNT     Print Forms ...
Select New Encounter Form Option: INS

AEEF     Add/edit encounter form
AEPG     Add/edit print group
VEGD     View EF genl. descriptions
VETD     EF tech description
VPG      List print groups
CHK      Check PCC+ environment
CSC      Comprehensive system check
HS       Synchronize header files
PGS      Synchronize print groups
TS       Synchronize templates
Select Installation Utilities Option: CSC

***** PCC+ INSTALLATION CHECKER *****
NOTE: This utility does NOT update the PCC+ configuration files.
It simply reports on the status of the current installation.
When you see the '<>' symbol, press the <ENTER> key to continue scrolling...

Before proceeding, it is a good idea to run a quick environment check.
Do you want to check the PCC+ environment now? Yes// YES
Checking computing environment...
  Vendor: MSM
  Operating System: WINDOWS
  PCC+ version number: 1.2
Checking routines...
  The routine ABMDLCK is either missing or not the current version
You must insert the current version of the PCC before proceeding!

Checking files...
  The file EMPLOYER is missing
  The file POLICY HOLDER is missing
You must obtain the required files before proceeding!

Checking PCC+ Routines...
All required PCC+ routines seem to be present

Checking PCC+ Package files...

```

```

All required PCC+ files seem to be present

PLEASE MAKE THE REQUIRED CHANGES BEFORE PROCEEDING WITH THE INSTALLATION....

OK, your current installation and configuration will now be validated...

Checking the primary configuration
  INVALID OPERATING SYSTEM IN THE CONFIGURATION FILE    <= OK

  ADDITIONAL INFORMATION ABOUT THE CURRENT CONFIGURATION:
    FACILITY TYPE: IHS
    ONLY ONE CLINIC IS USING PCC+: OUTPATIENT
    EDIT DEMOGRAPHICS DURING CHECK-IN: NO
    ASK TO PULL CHART DURING CHECK-IN: YES
    ALWAYS PRINT HEALTH SUMMARY IN MED RECORDS: YES
    DISPLAY ONLY CHRONIC MEDS - NOT ALL MEDS: YES
CHECKING ENCOUNTER FORM TEMPLATES...
  MD MEDICAL CLINIC    <= OK
  CJ-TEST    <= OK
  ASTHMA
    MISSING BARCODE CHARACTER
  DM-Annual    <= OK
  MTX
    MISSING BARCODE CHARACTER
  PHYSICAL
    INVALID HEADER MNEMONIC.  MUST BE 1-10 LOWERCASE LETTERS - NO
SPACES
  CHART REVIEW
    INVALID HEADER MNEMONIC.  MUST BE 1-10 LOWERCASE LETTERS - NO
SPACES
  BLANK CONTINUATION FORM
    MISSING BARCODE CHARACTER
  DM-Quarterly
    INVALID HEADER MNEMONIC.  MUST BE 1-10 LOWERCASE LETTERS - NO
SPACES
  URGENT CARE-M Koepping
    MISSING BARCODE CHARACTER
  RX-1    <= OK

CHECKING PRINT GROUPS...
  WSP_MEDICAL    <=OK
  WSP_MR (MEDICAL RECORDS PRINT GROUP)    <=OK
  WSP_TEST    <=OK
CHECKING CLINICS...
  OUTPATIENT
    USE VALID NAME FORMAT: 'Facility - Clinic'; e.g., PIMC - PEDIATRICS
<
=OK
  CHART REVIEW    <=OK
  MEDICAL RECORDS    <=OK
  TELEPHONE ENCOUNTER    <=OK
  PHARMACY
    USE VALID NAME FORMAT: 'Facility - Clinic'; e.g., PIMC - PEDIATRICS
<
=OK

```

Checking synchronization between RPMS Server and Print Server  
Accessing information....

Checking files in Print Server #1 (161.223.242.23)

PRINTER GROUP(S) properly synchronized on the RPMS and Print Servers:

WSP\_MEDICAL

WSP\_MR

WSP\_TEST

Checking files in Print Server #2 (161.223.242.23)

PRINTER GROUP(S) properly synchronized on the RPMS and Print Servers:

WSP\_MEDICAL

WSP\_MR

WSP\_TEST

Accessing information....

Checking out templates on Print Server #1 (161.223.242.23)

PRINT TEMPLATE(S) properly synchronized on the RPMS and Print Servers:

wspwi\_template.doc (MD MEDICAL CLINIC)

cjtest\_template.doc (CJ-TEST)

asthma\_template.doc (ASTHMA)

dm\_template.doc (DM-Annual)

mtx\_template.doc (MTX)

pe\_template.doc (PHYSICAL)

chartreview\_template.doc (CHART REVIEW)

blank\_template.doc (BLANK CONTINUATION FORM)

dmquarterly\_template.doc (DM-Quarterly)

urgentcare\_template.doc (URGENT CARE-M Koepping)

rx\_template.doc (RX-1)

PRINT TEMPLATE(S) registered in the PCC+ Print Service but not  
in the VEN EHP EF TEMPLATES file:

hs2\_template.doc

og\_template.doc

This will not cause any tech problems, but you will not be able to  
access

a PRINT TEMPLATE unless it is entered in the VEN EHP EF TEMPLATES file  
Checking out templates on Print Server #2 (161.223.242.24)

PRINT TEMPLATE(S) properly synchronized on the RPMS and Print Servers:

wspwi\_template.doc (MD MEDICAL CLINIC)

cjtest\_template.doc (CJ-TEST)

asthma\_template.doc (ASTHMA)

dm\_template.doc (DM-Annual)

mtx\_template.doc (MTX)

pe\_template.doc (PHYSICAL)

chartreview\_template.doc (CHART REVIEW)

blank\_template.doc (BLANK CONTINUATION FORM)

dmquarterly\_template.doc (DM-Quarterly)

urgentcare\_template.doc (URGENT CARE-M Koepping)

rx\_template.doc (RX-1)

PRINT TEMPLATE(S) registered in the PCC+ Print Service but not  
in the VEN EHP EF TEMPLATES file:

hs2\_template.doc

og\_template.doc

pharmacy\_template.doc

wic\_template.doc

```

This will not cause any tech problems, but you will not be able to
access
a PRINT TEMPLATE unless it is entered in the VEN EHP EF TEMPLATES file

Checking encounter form header files.....
Accessing information....
Header files 'ef_header.txt' on Print Server #1 (161.223.242.23)
and 'efheader.txt' on the RPMS Server are valid and synchronized.

Header files 'ef_header.txt' on Print Server #2 (161.223.242.24)
and 'efheader.txt' on the RPMS Server are valid and synchronized.

Checking health summary header file.....
Accessing information....
Header files 'hs_header.txt' on Print Server #1 (161.223.242.23)
and 'hsheader.txt' on the RPMS Server are valid and synchronized.
Header files 'hs_header.txt' on Print Server #2 (161.223.242.24)
and 'hsheader.txt' on the RPMS Server are valid and synchronized.

```

*Figure 5-1: Check the System Environment*

This option does not allow you to make changes, but it does give you an extremely comprehensive diagnostic check up of the PCC+ environment. Four other options on the Installation Menu will enable you to obtain individual pieces of this report.

```

CHK   Check PCC+ environment
HS     Synchronize header files
PGS    Synchronize print groups
TS     Synchronize templates

```

## 5.2 Add/Delete a Clinic

Users of PCC+ Version 1.1 requested better utilities to add, configure, and delete PCC+ clinics.

### 5.2.1 Add a Clinic

In the initial installation, there must be at least four PCC+ clinics registered on the RPMS server: medical records, telephone triage, chart review, and whatever clinics actually will be using the application. Use the new utility for adding and editing clinics. It enables you to set default values for providers, encounter forms, health summary types, print groups, etc.

**Note:** The medical records department should be flagged as an inactive location, so that it cannot be inadvertently selected as a destination during the check-in process.

```

INS      Installation Utilities ...
MGR      Manager's Menu for Encounter Forms ...
PRNT     Print Forms ...

```

```

Select New Encounter Form Option: MGR

PRNT  Print Forms ...
  MON  Monitor Print Deamon
  GO    Start Print Deamon
  STOP  Stop the Print Deamon
  ICD   Import ICD Preferences from Excel
  EXTR  Extract Preferences from PCC Database
  SYS   Edit Orderables
  QUE   Monitor the Check-In Queue
  CADD  Add a PCC+ clinic
  CDEL  Delete a clinic
  CLON  Clone a set of ICD preferences
  CORD  Clone Orderable Set
  DICD  Delete a users ICD preferences
  DORD  Delete an Orderable Set
  EDI   Edit ICD Preferences

Select Manager's Menu for Encounter Forms Option: CADD

          ***** ADD / EDIT A PCC+ CLINIC *****

To add a new clinic, answer the following questions
At any time, you may enter '??' to see the choices

Enter the name of the new clinic.  It should be in the format:

    {SITE} - {CLINIC}  e.g., ANMC - PEDIATRICS or CROW - DENTAL

Clinic name: CROW - ORTHO
Are you adding 'CROW - ORTHO' as a new VEN EHP CLINIC (the 8TH)? Y (Yes)

Enter the name of the DEPARTMENT (CLINIC STOP) associated with this clinic
DEPARTMENT: ORTHOPEDIC          19

Enter the name of this clinic's DEFAULT ENCOUNTER FORM used during check-in
DEFAULT ENCOUNTER FORM: CROW ORTHO
Enter the name of this clinic's DEFAULT HEALTH SUMMARY used during check-in
DEFAULT HEALTH SUMMARY: ADULT REGULAR

Enter the name of this clinic's DEFAULT PROVIDER used during check-in
DEFAULT PROVIDER: CROW,ORTHOPEDIST

Enter the name of this clinic's HEALTH SUMMARY PRINT GROUP
HEALTH SUMMARY PRINTER GROUP: CROW_WALKIN

Enter the name of this clinic's ENCOUNTER FORM PRINT GROUP
EF PRINTER GROUP: CROW_WALKIN

Does this clinic ever require an outguide request during check-in? Yes// YES

```

*Figure 5-2: Adding a Clinic*

Here are some tips on how to complete the dialogue shown in Figure 5-2.

- When naming the clinic, use the format {site} – {department}; e.g., CROW – WALK-IN. This exact name will appear at the top of the encounter form in the “hdr” field.
- The clinic stop must come from the PCC+ standard list of clinics. This information is used when the visit is created.
- The name of the default Encounter Form appears on the check-in menu after the clinic has been selected.
- The name of the default health summary appears on the check-in menu after the clinic has been selected.
- The name of the default provider appears on the check-in menu after the clinic has been selected. This provider “owns” the default set of user preferences for the designated clinic.
- The health summary print group determines where the health summary will be printed for the designated clinic.
- The encounter form print group determines where the Encounter Form will be printed for the designated clinic.
- If you want the outguide question to appear during the check-in process for the designated clinic, type YES at the last question. The information entered will be used to populate the VEN EHP CLINIC file and the VEN QUEUE TYPE file.

### 5.2.2 Deleting a Clinic

To delete a Clinic, use the option CDEL (Figure).

```
Enter the name of the clinic you want to delete: CROW - ORTHO
Are you sure you want to delete CROW - ORTHO? Yes// YES
Clinic deleted!!
The QUEUE TYPE 'CROW - ORTHO' has also been deleted
Press any key to continue:
```

*Figure 5-3: Deleting a Clinic*

## 5.3 Add a Print Group

Print groups must be synchronized on both the RPMS and print servers. A new utility manages the synchronization. Before calling this utility, the new print group must be registered on the print service of both print servers (Figure 5-4). To use this utility, select the INS option from the VENMENU.



```

ILC ENC FORM/HLTH SUMMARY V1.2:  Installation Utilities
LOCATION:  CROW HO                      USER:  CHAPEK, JADE A
-----

```

```

AEEF  Add/edit encounter form
AEPG  Add/edit print group
VEGD  View EF genl. descriptions
VETD  EF tech description
VPG   List print groups
CHK   Check PCC+ environment
CSC   Comprehensive system check
HS    Synchronize header files
PGS   Synchronize print groups
QCK   Check Queue Type file
SS    Create Scheduling Pkg link
TS    Synchronize templates

```

Select Installation Utilities Option: **AEPG**

Enter the name of the Print Group: **PSYCH**

One moment please...

PSYCH has not been regestered on the RPMS server yet!

Do you want to do this now? YES// **YES**

PSYCH has been entered on the RPMS Server!!

Is this Print Group located in the Medical Records Department? **NO**

Done!

*Figure 5-4: Adding a Print Group*

## 5.4 Check the Queue Type File

If there are missing, invalid, or redundant entries in the VEN QUEUE TYPE file, many undesirable side effects can occur. Use the QCK option on the Installation Menu to assess and repair the VEN QUEUE TYPE file (Figure 5-5).

```

AEEF  Add/edit encounter form
AEPG  Add/edit print group
VEGD  View EF genl. descriptions
VETD  EF tech description
VPG   List print groups
CHK   Check PCC+ environment
CSC   Comprehensive system check
HS    Synchronize header files
PGS   Synchronize print groups
QCK   Check Queue Type file
TS    Synchronize templates

```

Select Installation Utilities Option: **QCK**

Checking the QUEUE TYPE file...

The QUEUE TYPE file has been validated!!

Press any key to continue:

*Figure 5-5: Checking the Queue Type File*

## 5.5 Setting Up the Scheduling Package for PCC+

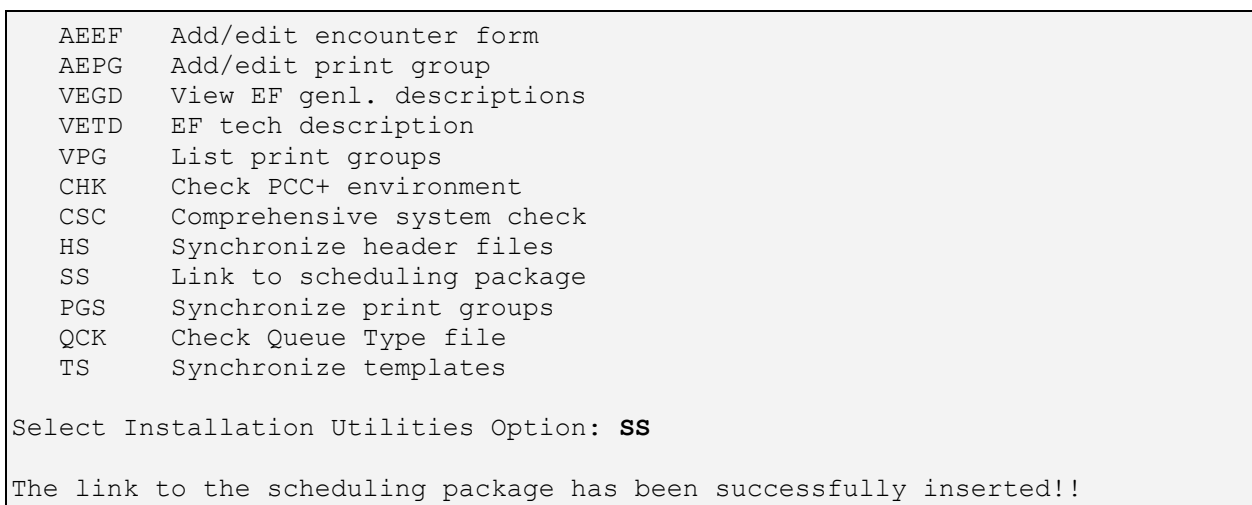
The IHS Scheduling package uses its own check-in process. This process can be modified to generate PCC Encounter Forms. This utility only works with Scheduling package version 5.0 and higher.

There are 4 steps for setting up the scheduling package:

1. Activate the PCC+ link to the scheduling package
2. Setup **each individual scheduling clinic** to print PCC+ encounter forms
3. Assign VENZSCH key to scheduling clerks. The SDZPCC key must be assigned to the site manager to setup the scheduling clinic for PCC+.<sup>2</sup>
4. Verify that the clinic code in the PCC+ clinic must match the one in the scheduling package.

### 5.5.1 Activating the PCC+ Link To The Scheduling Package:

From the PCC+ Installation Menu, select the Link to the scheduling package.



*Figure 5-6: Activating the PCC+ Link to the Scheduling Package*

### 5.5.2 Setting Up Each Individual Clinic To Print PCC+ Encounter Forms

From the scheduling supervisors menu, select the SET UP A CLINIC menu option:

<sup>2</sup> This list item was revised 6/25/02. See correction number 2 (section 1.0) for more information.

<p>SET UP A CLINIC</p> <p>Use this option to create clinics, modify their parameters, and to change their appointment availability.</p> <p>Select CLINIC NAME: test</p> <p>CHOOSE 1-2: 1 test</p> <p>CLINIC: test//</p> <p>ABBREVIATION: TEST//</p> <p>DIVISION: YOUR DIVISION//</p> <p>NON-COUNT CLINIC? (Y OR N): NO//</p> <p>INCLUDE ON FILE ROOM LISTS?: YES//</p> <p>MULTIPLE CLINIC CODES USED?:</p> <p><b>CREATE VISIT AT CHECK-IN?: YES//</b></p> <p>DEFAULT VISIT PROVIDER: SMITH, ANNA//</p> <p>VISIT PROVIDER REQUIRED?: YES//</p>		<div style="border: 1px solid black; padding: 5px;"><p><b>Clinic code should match PCC+ Clinic Code</b></p></div>
---	--	---

Figure 5-7: Setting Up Each Individual Clinic to Print PCC+ Encounter Forms

## 5.6 Recovering From Major Errors

PCC+ has proven to be a reliable application, but rarely, bad things happen. In most cases, error messages sent to the check-in process are caused by minor problems that can be repaired quickly (e.g., PRINTER OUT OF PAPER). In rare instances, the error messages are of a more serious nature typically caused by network or synchronization problems. Recovery from these more serious problems requires three steps:

1. Isolate the problem
2. Interpret the error message and take action to correct the underlying problem
3. Restart the system

### 5.6.1 Isolate the Problem

The first step is to determine which print server is causing the problem. In some cases the error message will contain the IP address of the offending server. In other cases, you will have to run a few simple tests to determine the location of the problem. Follow these steps to isolate the bad Print Server.

1. Keep all users off the system while you are running this test.
2. Stop the PCC+ print daemon using the STOP option.
3. Reset the system using the RES option. Do not restart the print daemon. (See below)
4. In FileMan, go to the VEN EHP CONFIGURATION FILE. Set both IP addresses to the IP address for print server number 1.

5. Check-in a demo patient. If the error is reproduced, print server #1 is at fault.
6. If the error is not reproduced, go to the VEN EHP CONFIGURATION FILE. Set both IP addresses to the IP address for print server #2.
7. Check in a demo patient. If the error is reproduced, print server #2 is at fault.
8. Fix the error as described below and test with a demo patient to make sure the fix is successful.
9. Reset the IP addresses in the VEN EHP CONFIGURATION file to their original values.
10. Run the reset option once again. This time restart the print daemon.
11. Allow users back on the system.

```
Select OPTION: 1  ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: VEN EHP CONFIGURATION//
EDIT WHICH FIELD: ALL// 11.1  PRINT SERVER 1 IP ADDRESS
THEN EDIT FIELD: 11.2  PRINT SERVER 2 IP ADDRESS
THEN EDIT FIELD:

Select VEN EHP CONFIGURATION NAME:      MSM AND WINDOWS NT2000
PRINT SERVER 1 IP ADDRESS: 127.0.0.1//
PRINT SERVER 2 IP ADDRESS: 127.0.0.2// 127.0.0.1
```

Figure 5-8: Resetting the IP address in the VEN EHP CONFIGURATION file

### 5.6.2 Interpret The Print Service Error Message And Take Corrective Action

The following table summarizes the serious error messages, explains what they mean and suggests corrective action.

MESSAGE	PROBLEM	SOLUTION
GENERAL FAILURE: MISSING PRINT SERVICE PARAMETER	Missing parameter in the VEN PCC CONFIGURATION file	Make sure that the IP addresses, socket numbers and paths are all present and correct.
UNABLE TO ACCESS ANY PRINT SERVERS	PRMS server can not connect to the Print Service on either Print Server	Make sure both print servers are up and have active network connections (ping)
UNABLE TO ACCESS ONE OF THE PRINT SERVERS (xxx.xxx.xxx.xxx))	PRMS server can not connect to the Print Service on the specified Print Server	Make sure the print server is up and has an active network connection (ping)
TRANSMISSION ERROR("XXX") or TRANSMISSION FAILURE	The TCP socket is busy	If problem persists, reboot the RPMS server

MESSAGE	PROBLEM	SOLUTION
PRINT SERVICE ERROR: or PRINT SERVICE ERROR: GENERAL	Print service is locked up	Isolate the offending Print Server. Try to stop the print service and restart it. If this fails, reboot the print server.
PRINT SERVICE ERROR: INVALID PRINTER GROUP	Print groups are not synchronized on the RPMS server and the Print Server	Use the Print Group synchronization utility to identify the synchronization error and then move the missing file to the print service template folder
PRINT SERVICE ERROR: PRINTER ENUMERATION ERROR	The PCC+ Print Service is requesting a printer that no longer exists on the network	Find out why the Print Server can not "see" the printer. You may have to re-add the printer to the list as described in the Installation guide.
PRINT SERVICE ERROR: SERVICE IS BUSY	Print Service is stuck	Restart the print service or reboot the Print Server
PRINT SERVICE ERROR: CHECKSUM ERROR	The data file was corrupted during transmission	Check network connections and try again
PRINT SERVICE ERROR: START FAILURE	Unable to start the mail merge process	Restart the print service or reboot the Print Server

### 5.6.3 Restart the System

The best way to get out from under a serious error state (e.g., a GENERAL ERROR) is to reset PCC+. Typically, these errors are seen if an invalid print template or print group is request of if there has been a network failure. After rebooting both print servers, select the RES option on the PCC+ managers menu. This option will clean out all the unprinted files and unprocessed error messages and it starts the system in a "clean" state (Figure 5-9).

```

PRNT  Print Forms ...
MON   Monitor Print Deamon
GO    Start Print Deamon
STOP  Stop the Print Deamon
ICD   Import ICD Preferences from Excel
EXTR  Extract Preferences from PCC Database
SYS   Edit Orderables
QUE   Monitor the Check-In Queue
CLON  Clone a set of ICD preferences
CORD  Clone Orderable Set
DICD  Delete a users ICD preferences
DORD  Delete an Orderable Set
EDI   Edit ICD Preferences
RES   Reset and restart PCC+
Select Manager's Menu for Encounter Forms Option: RES
WARNING!!!
This option will erase all files in the print queue and reset the system
Want to proceed? No// YES (Yes)
The Print Directory has been cleaned out.
Want to start the Print Deamon now? Yes// N (No)

```

Figure 5-9: Restarting the Machine

## 5.7 Specifying Where Documents Should Be Printed

If you use the standard PCC+ check-in process, version 1.2 enables you to have complete control over what documents are printed and where each document is printed. Each time a patient checks in, one or more of the following documents can be printed at a particular location:

- The PCC+ encounter form and/or patient instruction sheet
- The health summary
- The outguide

## 5.8 Encounter Form/Instruction Sheet Options

The most common way to generate an encounter form is to select the ALL option from the VEN print menu. This choice will also print a health summary and give the users an opportunity to print an outguide.

```

ILC ENC FORM/HLTH SUMMARY V1.2:  Print Forms
LOCATION:  SELLS HOSPITAL/CLINIC          USER:  SHORR,GREG
-----
ALL      Print Encounter Form, Health Summary, Outguide
EF       Print Encounter Form
HS       Print Health Summary
OG       Print OutGuide in Medical Records
DEMO     Print Demo (for learning only)
LIST     Print checkin list
RPT      Reprint form
UP       Update demographics only

Select Print Forms Option:
  
```

*Figure 5-10: Encounter Form/ Instruction Sheet Options*

A single encounter form with no other documents will be generated if the PRINT ENCOUNTER FORM option (EF) is selected. A single encounter form will also be generated if the patient is checked in using the scheduling package interface. If the clinic is Telephone Triage or Chart Review, an encounter form will be created.

As a general rule, whenever an encounter form is generated. A visit and Visit Control Number (VCN) are created at the same time. This establishes an audit trail for billing purposes. The only exceptions: if the demo patient is chose or if the demo option is chosen, demographic cannot be updates and no visit is created.

The print location of any encounter form can be determined by the EF PRINTER GROUP field (2.01) of the VEN EHP CLINIC file. The DEFAULT ENCOUNTER FORM field of that same file determines the default value that is presented to the clerk during the check-in process.

## 5.9 Health Summary Options

The most common way to generate a health summary is to select the ALL option from the VEN print menu. This choice will also print an encounter form and give the users an opportunity to print an outguide.

ILC ENC FORM/HLTH SUMMARY V1.2: Print Forms	
LOCATION: SELLS HOSPITAL/CLINIC	USER: SHORR,GREG
-----	
ALL	Print Encounter Form, Health Summary, Outguide
EF	Print Encounter Form
HS	Print Health Summary
OG	Print OutGuide in Medical Records
DEMO	Print Demo (for learning only)
LIST	Print checkin list
RPT	Reprint form
UP	Update demographics only
Select Print Forms Option:	

Figure 5-11: Health Summary Options

A health summary with no other documents will be generated if the Print Health Summary option (EF) is selected. No health summary will be generated if the patient is checked in using the Scheduling package interface. Instead a “traditional” health summary” and “face sheet” is printed by MAS. If the clinic is Telephone Triage or Chart Review, a health summary will be created. The generation of a health summary, by itself, does not create a visit.

Three special fields determine if and where the health summary is printed. In the VEN EHP CONFIGURATION file, there is a field called ALWAYS PRINT HS IN MR (.1). A value of YES will force the health summary to always print in medical records – typically with the outguide. This parameter can be overridden by 2 fields in the VEN EHP CLINIC FILE. If the field NEVER PRINT HEALTH SUMMARY (2.13) is set to YES, the health summary will not be printed in that clinic. By placing a value in the HEALTH SUMMARY PRINTER GROUP field, you can direct the health summary to be printed on available printer group.

## 5.10 Outguide Options

A request for an outguide will never, by itself, create a visit. The outguide will always print on the designated medical records printer. The user will not be given the option to print the outguide during the check-in process if the ASK TO PULL CHART field of the VEN EHP CONFIGURATION file is set to NO. On the main print menu, the outguide can be selected with other documents with the ALL option, or it can be selected alone with the PRINT OUTGUIDE IN MEDICAL RECORDS option. The outguide will not be generated if the Scheduling package is used for check-in. Instead the Scheduling package will print a face sheet in the usual way. An

outguide can be blocked for an individual clinic by setting the NEVER PRINT OUTGUIDE field to NO in the VEN EHP CLINIC file.

## 5.11 Visits And Visit Control Numbers

Except in demo or reprint mode, a visit is generated every time a PCC+ encounter from is printed. The PCC+ check-in process uses the standard call to APCDALV to generate the visit.

Many PCC+ site use third part billing packages that require a Visit Control Number (VCN). The visit control number is automatically created by the Data Entry package whenever a new visit is created. PCC+ obtains the VCN from the call \$\$VCN^AUPNVSIT.

## 5.12 Creating a Test Data File

This procedure describes how to create a data file (e.g., efddata.doc) comprised of real RPMS patient data to use while designing forms.

1. Stop the print daemon in RPMS using the Stop Print Daemon menu option on the PCC+ Manager's Menu.
2. Block the printing process. To do this, run FileMan and edit the file VEN EHP CONFIGURATION.

```
>D P^DI
Select OPTION:      ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: VEN EHP CONFIGURATION// VEN EHP CONFIGURATION
EDIT WHICH FIELD:  ALL// BYPASS PRINTING
THEN EDIT FIELD:

Select VEN EHP CONFIGURATION NAME:  BBC PRIMARY CONFIGURATION
```

*Figure 5-12: Block the Printing Process*

3. Select a patient who is a "frequent flier" at your facility. No visit will be created during this test. The temporary data files will be located in the directory on your UNIX or NT servers. Check the directory specified in the VEN EHP CONFIGURATION FILE "PATH TO PRINT FOLDER" ( on UNIX machines /usr/print/ or on Windows machines C:\PCCPLUS\print\ ). The file names begin with the letter "e", "h", or "g" followed by a number followed by ".txt"; e.g., "e12765.txt". Feel free to examine the contents of the files. They contain the raw data the Word's Mail Merge process inserts into the documents. If these files are not present, or you encounter an error during the data extraction process, call tech support for assistance. Rename the file beginning with the letter "e" to demodata.doc or efddata.doc, and move this to the PC or print server where you are editing the forms. This file will be your data source.



4. Return to FileMan and the VEN EHP CONFIGURATION file. Set the parameter BYPASS PRINTING back to NO.
5. Restart the Print Daemon using the PCC+ Manager Menu Start Print Daemon option.

## 6.0 PCC+ Forms

### 6.1 Define and Add a Template

Extensive additions have been made to PCC+ that help site manager to document, validate, add, delete, and synchronize encounter form templates. The most important addition is the template description form: “template\_info.dot”. This is a Word “form” that allows you to record information about a template. This form contains a macro that generates a companion description file for a specific template. The other major addition is a template adder utility that validates the template content and synchronizes template information on RPMS and print servers. These additions are described below.

#### 6.1.1 Generate a Companion Descriptor File

During the initial release of PCC+, some users reported difficulty synchronizing Encounter Form templates on the print servers and the template configuration file (VEN EHP EF TEMPLATES) on the RPMS server. Other users had problems with template validity and sharing. To prevent these problems, PCC+ now requires template descriptor files; i.e., each template should now be accompanied by a companion metafile that defines the contents of its associated template. These descriptor files are used by PCC+ to automatically validate and synchronize all templates registered on the RPMS and print servers.

A new utility, the Descriptor File Generator (DFG), is used to create each descriptor file. The DFG is actually a special Word-based data input form with built in macros and pre-defined fields. Whenever a new template is developed or imported, the site manager should call up the DFG and generate a companion descriptor file. The whole process is quite painless and can be completed in three easy steps.

1. Open the form.
2. Complete the form and submit the information.
3. Check the descriptor file.

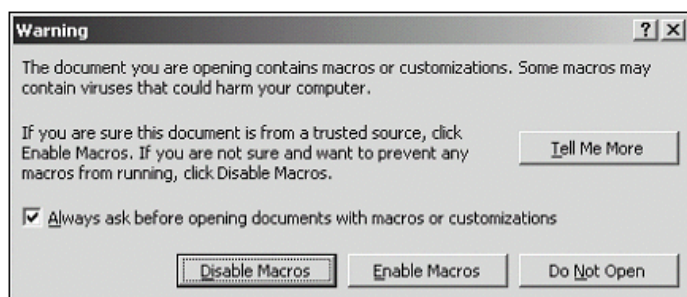


Figure 6-1: Word Warning Message

You must click the Enable Macros button in the middle of the pop-up screen. If this warning message does not appear, you probably need to reset the Word macro security level to medium.

### Complete The Form And Submit The Information

A form enables users to tab through the document and enter information into specified fields. Only fields can be edited by the user. The rest of the document is locked (Figure 6-2).

### PCC Plus TEMPLATE Description Form

PCC Plus template file: \_template.doc  
 Location (15 characters max):   
 Type:   
 Header File: ef\_header.txt  
 Description (250 characters max):   
 Created by:   
 Created on:   
 Created at:   
 Version:

---

#### INSTRUCTIONS FOR USING THIS FORM

This form should be used to describe all encounter form templates stored on the Print Server. It contains a built-in macro (triggered by the submit button) that does 3 things:

- Step 1 It analyzes the template you are documenting to determine what fields are present.
- Step 2 It captures the descriptive information you have entered on this form.
- Step 3 It creates a "companion document" that contains the information collected in steps 1 and 2.

The name of the companion document is based on the name of the template:

Template: {xxx}\_template.doc  
 Companion document: {xxx}\_template\_info.txt

Both the template and its companion file are stored in the same folder.

**PPC Plus Template File (mandatory):** This will be the name of the file on the print server; e.g., wic\_template.doc. The file must exist on the print server, and the name format must be in the format {xxx}\_template.doc

**Location (mandatory):** This is a brief location name (uppercase, 15 characters max) where the form is to be used; e.g., "CROW". If the name is going to be over 15 characters use an abbreviation; e.g., "GIMC".

**Type (mandatory):** This is a brief description (uppercase, 15 characters max) of the type of form; e.g., "WALK-IN" or "PEDIATRICS".

**Header File:** Take the default value, "ef\_header.txt".

**Description:** This is a free text description of the form (250 characters max).

**Created by:** Enter the name or initials of the person that created the form.

**Created on:** Enter the date the latest version of this form was released.

**Created at:** Enter a brief description of where the form was created.

**Version number:** Enter a version number for the form – up to 2 decimal places

Figure 6-2: PCC+ Template Description Form, Full View

The user should tab or click through the document filling in each field. When all fields are completed, click the submit button. The template will be analyzed and a companion descriptor form will be created in the templates folder. This process may take several minutes.

In the following example (Figure 6-3), the DFG is used to create a descriptor file for the template “wic\_template.doc” used in the Crow walk-in clinic.

**PCC Plus TEMPLATE Description Form**

PCC Plus template file: wic\_template.doc  
 Location (15 characters max): CROW  
 Type: WALKIN CLINIC  
 Header File: ef\_header.txt  
 Description (250 characters max): This template is for general medical patients

Created by: GIS  
 Created on: 8/1/01  
 Created at: Crow Hospital  
 Version: 1.12

Submit Cancel

Figure 6-3: PCC+ Template Description Form, Top View Only

### Check the Descriptor File

A message will pop up stating that the descriptor form has been successfully generated. It is always a good idea to confirm this. Look in the folder c:\ProgramFiles\ILC\ILC Forms Print Service\Templates\. Find the template “{xxx}\_template.doc and its companion descriptor file {xxx}\_template\_info.doc. If you open the descriptor file, you will see a tab delimited string that contains the information you entered using the DFG as well as the names of every field imbedded in the template. The text string is “readable” by certain PCC+ utilities (Figure 6-4).

```
wic_template.doc^BBH^WALKIN CLINIC^ef_header.txt^This is a long
description^gis^1/1/01^fcs^1.13^lab1^grav^para^1^c^ab^hdr^provider^x22^x
23^x24^x14^x10^x1^x11^x2^x12^x3^x13^x4^x5^x6^x7^x8^h1^h2^h3^h4^h5^h6^h7
^h8^h9^h10^h11^h12^h13^h14^h15^h16^h17^h18^h19^h20^h21^h22^h23^h24^
h25^h26^c13^c27^c15^c17^c16^c18^c19^c20^c22^c24^c23^c25^c21^ab2^fpm^d1
^x^d1^c^d1^d19^x^d19^c^d19^d37^x^d37^c^d37^d2^x^d2^c^d2^d20^x^d20^c^d20^d38^x^d38^c
^d38^d3^x^d3^c^d3^d21^x^d21^c^d21^d39^x^d39^c^d39^d4^x^d4^c^d4^d22^x^d22^c^d22^d4
0^x^d40^c^d40^d5^x^d5^c^d5^d23^x^d23^c^d23^d41^x^d41^c^d41^d6^x^d6^c^d6^d42^x^d42^c^d42^d4
2^x^d42^c^d42^d7^x^d7^c^d7^d25^x^d25^c^d25^d43^x^d43^c^d43^d8^x^d8^c^d8^d
```

Figure 6-4: Checking the Descriptor File

## 6.1.2 Validate Templates

Once template descriptor files have been created, a new PCC+ option called the Template Validator Utility (TVU) can be used to automatically analyze, validate, document, and synchronize all templates. To access this option:

1. Type **AEEF** (Add/edit encounter form utility) on the PCC+ installation menu.

**Note:** The TVU replaces a more primitive utility previously associated with this menu option.

2. Type the name of the template file on the print server. The report will appear (Figure 6-5).

```

ILC ENC FORM/HLTH SUMMARY V1.1:  Installation Utilities
LOCATION:  SELLS HOSPITAL/CLINIC          USER:  SHORR,GREG
-----

  INS    Installation Utilities ...
  MGR    Manager's Menu for Encounter Forms ...
  PRNT   Print Forms ...
Select New Encounter Form Option: INS

  AEEF   Add/edit encounter form
  AEPG   Add/edit print group
  VEGD   View EF genl. descriptions
  VETD   EF tech description
  VPG    List print groups
  CHK    CHECK EHP ENVIRONMENT
  HS     Synchronize header files
  PGS    Synchronize print groups
  TS     Synchronize templates

Select Installation Utilities Option: AEEF

Enter the file name of the template you want to validate =>
Template file name: wic_template.doc
One moment please...

Template: wic_template.doc          Header file: ef_header.txt
Descriptive name: BBH WALKIN CLINIC
Description: This is a template for a general medical clinic
Created by: GIS                     Created on: 8/1/01
Created at: CROW                     Version: 1.13

Field  Description                      # on this form  Max allowed on this
form  -----
a      Allergies                        5              5
d      ICD Preferences                  54             60
e      Exams                           10             20
i      Immunizations                   10             10

```

l	Lab tests	20	20
mm	Rx Medication	15	15
p	Active problems / Recent POVs	20	20
r	Imaging stuides	15	25
s	Injections	13	15
t	Treatments	15	20
x	Review of systems	16	50
y	Patient education topics	10	20
z	Supplies	10	20
..... WARNINGS .....			
Field l14 (Rx Sig) is missing			
Field l15 (Rx sig) is repeated			
Want to update the template configuration file on the RPMS server? YES// <b>YES</b>			
File updated!			

Figure 6-5: Template Validation Report

If you type **YES** at the “Want to update the template configuration file on the RPMS server? YES//” prompt, the VEN EHP EF TEMPLATE file will automatically be updated.

The TVU is programmed to recognize and report many kinds of problems including:

- Duplicate missing or invalid template names
- Duplicate, missing or invalid bar code characters
- Missing or invalid templates and companion files
- Lack of synchrony between print servers
- Lack of synchrony between print server and RPMS server
- Invalid, missing, transposed fields

## 6.2 Configure the Prescription List

PCC+ version 1.2 offers end users many new options for configuring the medication list. To configure the list, the site manager must directly edit the values of specified fields in the FileMan files shown below. Note that most of the configuration parameters are form specific (VEN EHP EF TEMPLATE file), but a few of the changes can be made globally (VEN EHP CONFIGURATION FILE). If a form-specific parameter conflicts with a global parameter, the form-specific parameter will take precedence. Parameters marked with a “\*” require that the PRESCRIPTION file be populated. Sites that use the Viking Pharmacy system do not fully populate the PRESCRIPTION file, so these features may not be available with Viking products. The Pharmacist Remarks field of the PCC+ encounter form also requires a populated PRESCRIPTION file.

<b>FORM SPECIFIC PARAMETERS: VEN EHP EF TEMPLATE FILE</b>	
MAX ACTIVE DRUG PERIOD	Limits display of active medications to N days after the predicted expiration date. If the number of days is undefined, a default value of 75 days is used. The expiration date is computed from the DAYS PRESCRIBED field of the V MED file. If this field is empty, a default value of 180 (days prescribed) is used.
DISPLAY CHRONIC MEDS ONLY*	Print only chronic meds on this encounter form. This will override the setting in the VEN EHP CONFIGURATION file
DISPLAY ACTIVE MEDS ONLY*	If the status field in the Prescription file is 'null' 'hold', 'refill', 'non verified', or 'active', the prescription will be displayed.
HIDE REDUNDANT MEDS	Hides redundant medications
MAX RXS	Enter the number of medications that can be displayed on this form (up to 15). This field is used as a check to display "more medications appear elsewhere" statement.
<b>SITE PARAMETER: VEN EHP CONFIGURATION FILE</b>	
CHRONIC MEDS ONLY:*	Print only chronic meds on the encounter forms.
USE EXPANDED PHARMACY SIGS*	Print expanded pharmacy sigs
<b>HEALTH SUMMARY MEDS Can Be Displayed for a specified time period</b>	
MEDS - ALL MEDS - ALL WITH # ISSUED MEDS - CHRONIC MEDS - CURRENT MEDS - MOST RECENT BY GROUP MEDS - MOST RECENT OF EACH MEDS - MOST RECENT SHORT FORM	

## 6.3 Special Take Home Forms

Many users have expressed the need to produce special customized forms such as work excuses and patient education sheets. These forms are not encounter forms, but they are similar from a PCC+ perspective. These forms need to be printed at the end of an encounter, and they should not generate a visit. Two different strategies could work here.

In the first scenario, the patient had outs are printed at the same place the encounter form is generated. After the encounter with the provider, the department check-in clerk re-enters the patient via the usual check-in process. This process exactly matches the initial check-in process except, on the second pass, the clerk requests a specific form that contains the desired patient education materials. Since the same patient is being checked in to the same clinic during a 6-hour period, PCC+ prevents a new visit from being created.

In the second scenario, the clinic decides to provide patient education materials at a different location – away from the original place where the encounter form was printed. This plan requires the creation of a new clinic and a new print group. One possibility is to create a new print group called “PATIENT ED”. To generate a form, the user selects the Demo option from the print menu. This will cause a new document to be generated without creating a new visit. Unfortunately the demo option leaves open the possibility that a health summary, encounter form, and outguide could be printed.

You can prevent the health summary from printing for the clinic in question by setting the value of field 2.13 (NEVER PRINT HEALTH SUMMARY) to YES in the file VEN EHP CLINIC. Similarly, you can block printing the outguide by setting the value of field 2.1 (NEVER PRINT OUTGUIDE) to YES. If the user requests this form in demo mode, only one document will print (no accompanying health summary or outguide) and no visit will be created.



## 7.0 Security

PCC+ utilizes six separate security schemes: three for the RPMS server, two for each print server, and one for the VCN remote control software.

### 7.1 RPMS Server

PCC security on the RPMS server is managed in the usual ways:

- Log-on security is managed with the usual access and verify codes.
- Access to PCC+ applications and tools is managed via the menu system. There are three PCC+ menus, each with their own keys.

Menu	Security Key	Description
VENMENU	VENZMENU	Main menu and parent menu to the other three PCC+ menus
VEN_MGR	VENZMGR	Manager's routines form monitoring and maintaining PCC+ processes
VEN_INSTALL	VENZMGR	Options used during the PCC+ installation process
VEN_PRINT	VENZPRINT	Options related to generating PCC+ forms
	VENZSCH	Access PCC+ via the IHS Scheduling Package

In addition, the directories that contain PCC+ directories are protected with special access codes and permissions that are assigned during the installation process.

### 7.2 Print Server

Log on security is managed through the log on dialogue. Users must log on as PRINT\_SERVICE\_MGR to access PCC+ functions. In addition, a special pass code is assigned so that remote support personnel can access the PCC+ directories via FTP.

### 7.3 VCN Remote Control Software

The VCN service requires an access code that is registered when the application is installed.

### 7.4 Directory Security and Permissions

PCC+ creates a data file on the RPMS server that is ultimately transmitted to the print server via the print daemon. This data file is temporarily stored on the RPMS server and contains confidential information. After it is transmitted, it is deleted from the RPMS server. It is imperative therefore, that the data file be stored in a secure directory that is protected from the "outside world". At the same time, this directory

must be available to MUMPS processes and support personnel. In UNIX, directory access is determined directly by permissions assigned by root for read, write, execute, and delete. In Windows NT, security can be maintained indirectly by configuring the FTP server to prevent outsiders from getting accessing certain drives and folders. A very high percentage of support calls are related to improperly assigned directory permissions—especially on UNIX systems. See the PCC+ installation guide version 1.2 for detailed instructions on how you can configure your RPMS system to maintain the security of the PCC+ data file.

## 8.0 Programmer Notes

### 8.1 Namespace Conventions

All routines, globals, files, options, and keys are in the official namespace VEN. Files are in the numberspace 19707.01-19707.99. All PCC+ FileMan globals use the open reference (^VEN(7.xx,. For example, the file 19707.94 uses the open reference ^VEN(7.94,. Temporary globals use the open reference ^TMP("VEN xxx...",\$J,.

### 8.2 System-Wide Variables

There are no system-wide variables in the VEN V 1.2 package.

### 8.3 Packaging

PCC+ is distributed as a standard DIFROM package. All routines and inits are in the file ven\_0120.r. All globals are in the file ven\_0120.g. If reinstalling PCC+ over an existing version, use the globals file ven\_0120.g2.

**Note:** beta version of the software has slightly different file names: ven0120.txr – where “x:” is the beta release number.

### 8.4 Published Entry Points

There are no published entry points in the VEN V 1.2 package.

### 8.5 Private Entry Points

See Figure 8-1.

```
VENPCC+4: CKIN ; EP-TO GENERATE AN ENCOUNTER FORM AND HEALTH SUMMARY DURING A NON-ILC CHECK-IN
VENPCC+10: PATIENT D CK^VENPCC3 ; PRINT ERRORS ; EP-FOR LOOPING TO NEXT PATIENT
VENPCC+49: EF ; EP-DEFAULT ENCOUNTER FORM
VENPCC+108: DEBUG ; EP-FOR DEBUG MODE - NO VISIT CREATED AND RECORD SENT TO FILE NOT TCP SOCKET
VENPCC+114: NOTASK ; EP-NO TASK DEBUG
VENPCC+119: DEMO ; EP-FROM VEN MENU OPTION ; DEMO MODE - NO VISIT CREATED
VENPCC+124: REPRINT ; EP-FROM THE MENU OPTION ; REPRINT THE ENCOUNTER FORM
VENPCC+126: EFONLY ; EP-FROM VEN MENU OPTION ; PRINT THE ENCOUNTER FORM ONLY
VENPCC+131: HSONLY ; EP-FROM VEN MENU OPTION ; PRINT THE HEALTH SUMMARY ONLY
VENPCC+136: OGOONLY ; EP-FROM VEN MENU OPTION ; OUTGUIDE ONLY
VENPCC+141: CKONLY ; EP-CHECKIN ONLY
VENPCC+146: PGRP(CIEN) ; EP-TO RETURN THE PRINTER LOCATION
VENPCC+156: DOCS N PATH,% ; EP-FROM VENPCCMX ; COUNT DOCUMENTS
VENPCC+163: PACK() ; EP-TO PACK UP ENVIRONMENTAL VARIABLES
VENPCC+169: DUP(DFN,DIEN) ; EP-GIVEN A DFN AND DEPT STOP IEN RETURN A '1' IF DUPLICATE VISIT
VENPCC+194: EN1 ; EP-FOR BACKGROUND PROCESSING OF DATA EXTRACTION
VENPCC+198: QUEUE(VISIT,DEPT,OGFLAG,TRFLAG) ; EP-UPDATE CHECKIN AND QUEUE FILES
VENPCC1+5: PRINT(VISIT,VCN,DEPTIEN,PRV,DEFEF,DEFHS,APPT,VARS,EXT) ; EP-PRINT ENCOUNTER FORMS
VENPCC1+57: ERR2 S ERR="Undefined print group" D ERR(ERR) Q ; EP-FROM SEVERAL VEN ROUTINES
VENPCC1+58: ERR3 S ERR="Missing or invalid patient DFN" D ERR(ERR) Q ; EP-FROM VENPCC2
VENPCC1+62: ERR7 S ERR="Missing path for configuration #" CFIGIEN D ERR(ERR) Q ; EP-FROM VENPCC2
VENPCC1+67: ERR(ERR) ; EP-FROM SEVERAL VEN ROUTINES ; MAKE AN ENTRY IN THE ERROR LOG
VENPCC1+83: TCP ; EP-FROM VENPCC ; EP-SEND THE MAIL MERGE FILE TO THE TCP SOCKET
```

```

VENPCC1+107: UNPACK(VARS) ; EP-FOR UNPACKING THE LOCAL VARIABLE LIST
VENPCC1+113: PG(DEPTIEN,FILE) ; EP-GIVEN A FILE AND DEPT, RETURN THE PRINT GROUP
VENPCC1A+5: DEMO (PRV,DFN,VCN,VIEN,DEPTIEN) ; EP-GENERATE DEMOGRAPHIC INFO
VENPCC1A+41: AGE(DOB) ; EP-GIVEN DOB RETURNS FORMATTED AGE
VENPCC1A+51: SPEC(DFN) ; EP-SPECIAL PATIENT INFO
VENPCC1A+67: PARSE(Z) ; EP-PARSE OUT REPRODUCTIVE HISTORY FROM FREE TEXT NARRATIVE
VENPCC1A+73: GP(Y) ; EP-PARSE OUT REPRO HX
VENPCC1A+82: BH(DFN) ; EP-GIVEN DFN GETS BIRTH HX
VENPCC1A+102: CHART(DEPTIEN,DFN) ; EP-GIVEN THE PATIENT DFN AND DEPT IEN RETURN THE CHART NMBR
VENPCC1B+5: DX (PRV,DFN) ; EP-GET PREFERRED DIAGNOSES
VENPCC1B+20: PROB(DFN) ; EP-GET ACTIVE PROBLEMS
VENPCC1B+52: MED (PRV,DFN) ; EP-GET RECENT MEDS
VENPCC1B+84: EXT(EXT) ; EP-PROCESS EXTERNAL DATA
VENPCC1B+106: RF(%) ; EP-GET RODUCTIVE FACTORS
VENPCC1B+121: ORD(IEN) ; EP-CHECK OFF AN ORDER ; NOT USED IN VERSION 1
VENPCC1B+130: CC(Y) ; EP-GETS CHIEF COMPLAINT ; NOT USED IN VER 1
VENPCC1B+138: CLASS(DFN) ; EP-GIVEN A DFN, RETURN THE PATIENT CLASS FOR USER PREFERENCES
VENPCC1C+5: SYS(DFN,DEFEF) ; EP-BASED ON SYSTEM LEVEL PREFERENCES, GENERATE MAIL MERGE FIELDS
VENPCC1C+20: XSET(SS,DFN,MIEN,MMF,CLASS,DEFEF) ; EP-SET MAIL MERGE FIELDS INTO TMP ARRAY
VENPCC3+45: VCN(VIEN,DEPTIEN) ; EP-GIVEN THE VISIT IEN (VIEN) AND DEPT IEN RETURN THE VCN
VENPCCD+6: PAT(DFN) ; EP-UPDATE DEMOGRAPHICS
VENPCCD1+5: PI ; EP-PVT INSURANCE
VENPCCD1+18: MDCD ; EP-MEDICAID
VENPCCD1+33: MCR ; EP-MEDICARE
VENPCCD1+58: ELIG ; EP-edit the elig. information from pat. reg
VENPCCD1+71: EMPL ; EP-changes to employer, employment status or spouses employer
VENPCCG2+5: FILE ; --EP-- CALLED FROM VENPCCG1
VENPCCG3+6: NARR ; EP-convert the provider narr. to mixed case sentences
VENPCCM1+5: PG ; EP-PRINT GROUP SYNCHRONIZATION
VENPCCM1+12: TEMPLATE ; EP-TEMPLATE SYNCHRONIZATION
VENPCCM1+19: HEADER ; EP-SYNC HEADER FILES
VENPCCM1+26: HDR(X,Y) ; EP-COMPARE HEADER FILES
VENPCCM1+35: VAR() ; EP-CREATE LOCAL VARIABLES
VENPCCM1+44: RUN() ; EP-REQUEST SPECIAL PRINT SERVICE FUNCTIONS
VENPCCM1+56: SYNC ; EP-START SPECIAL PRINT SERVICE FUNCTIONS ; RUNS IN BACKGROUND
VENPCCM1+80: GET(IP,SOCK,MSG,TMP) ; EP-GET DATA FROM PRINT SERVER AND STORE IT IN TMP
VENPCCM1+145: WAIT() ; EP-WAIT STATE
VENPCCM2+5: TSYNC(IP,IPA) ; EP-PRINT TEMPLATE SYNC
VENPCCM2+78: FILE(FILE,IP) ; EP-GIVEN A PATHFILE AND IP, RETURN THE FILE IN A STRING
VENPCCM2+92: TEMPLATE(IP) ; EP-RETURN THE TEMPLATE LIST FROM A PRINT SERVER
VENPCCM2+106: PGRP(IP) ; EP-RETURN THE PRINT GROUP LIST FROM A PRINT SERVER
VENPCCM3+5: PG(NAME) ; EP-VALIDATE AND SYNCHRONIZE INDIVIDUAL PRINT GROUPS
VENPCCM3+44: ONE ; EP-CHECK ONE PRINT GROUP
VENPCCM3+52: ALL ; EP-CHECK ALL PRINT GROUPS ON PRINT SERVER #1
VENPCCM3+68: QCK ; EP-CHECK QUEUE TYPE FILE
VENPCCM3+95: CADD ; EP-ADD A NEW CLINIC
VENPCCM3+129: CDEL ; EP-DELETE A CLINIC
VENPCCM4+5: ONE ; EP-ENTRY POINT FOR CHECKING JUST ONE TEMPLATE
VENPCCM4+17: ALL ; EP-CHECK ALL TEMPLATES
VENPCCM4+29: VAL ; EP-VALIDATE A TEMPLATE
VENPCCM4+73: REM2() ; EP-REDUNDANT CONFIG FILE ENTRIES
VENPCCM4+81: ADD(X) ; EP-ADD A NEW FILE
VENPCCM4+199: IP() ; EP-GET IP ADDRESSES FOR PRINT SERVERS
VENPCCMC+66: EF ; EP-ENCOUNTER FORMS
VENPCCMC+72: PG ; EP-PRINT GROUPS
VENPCCMC+86: CL ; EP-CLINICS
VENPCCMI+5: PG ; EP-PRINTER GROUP ENTRY ; EP FROM OPTION FILE
VENPCCMI+25: PGL ; EP-PRINTER GROUP LISTER ; EP FROM OPTION FILE
VENPCCMI+36: EFL ; EP-ENCOUNTER FORM LIST ; EP FROM OPTION FILE
VENPCCMI+42: EF ; EP-ENTER AN ENCOUNTER FORM ; EP FROM OPTION FILE
VENPCCMI+80: CLL ; EP-LIST CLINICS
VENPCCMI+86: CL ; EP-ENTER A CLINIC
VENPCCMI+98: CFG ; EP-EDIT THE CONFIG FILE
VENPCCML+5: ICD ; EP-CLONE USER ICD PREFERENCES
VENPCCML+33: ICDD ; EP-DELETE A SET OF ICD PREFERENCES
VENPCCML+47: CORD ;EP-CLONE CPT SETS
VENPCCML+69: DORD ; EP-DELETE AN ORDERABLE SET
VENPCCMP+65: LIST(EF,CPT,PGRP) ; EP-LIST THE ITEMS
VENPCCMP+153: SUB(LIST,EF,CPT,PGRP) ; EP-FOR SUBMITTING AN EXTERNALLY GENERATED LIST
VENPCCMP+187: SAVE(LIST,EF,CPT,PGRP) ; EP-DELETE THE OLD LIST AND SAVE THE NEW ONE
VENPCCMP+224: MAX(EF,CPT) ; EP-MAX ITEMS

```

```

VENPCCMX+44: STOP ; EP-STOP THE PRINT DEAMON
VENPCCMX+59: START ; EP-START THE PRINT DEAMON
VENPCCMX+74: AUTO ; EP-AUTOMATICALLY START PCC PLUS
VENPCCOH+22: CTR(X,Y) ; EP-Center X in a field Y wide.
VENPCCOH+25: LJRF(X,Y,Z) ; EP-left justify X in a field Y wide, right filling with Z.
VENPCCOH+32: USR() ; EP-Return name of current user from ^VA(200.
VENPCCOH+35: LOC() ; EP-Return location name from file 4 based on DUZ(2).
VENPCCP+122: OPN(PATH,FILE,RW,EX) ; EP-CLEAN HFS OPEN, USE, EXECUTE, CLOSE
VENPCCP+143: DEL(PATH,F) ; EP-FROM VENPCC2 - DELETE A FILE FROM THE PRINT QUEUE
VENPCCP+151: COUNT(PATH) ; EP-COUNT FILES WAITING TO BE PROCESSED
VENPCCP+193: OTCP(IP,SOCKET) ; EP-OPEN TCP
VENPCCP+199: CTCP ; EP-FROM ^VENPCCU ; CLOSE TCP
VENPCCU+5: PAUSE ; EP-PAUSE FOR USER
VENPCCU+13: FILE ; EP-DO FILE^DICN
VENPCCU+20: PRV(PIEN) ; EP-CONVERTS FILE 16 IEN TO FILE 200 IEN
VENPCCU+24: CHART(CHART,LIEN) ; EP-GIVEN A LOCATION IEN AND PHS CHART # RETURN THE PATIENT DFN
VENPCCU+33: CONVERT ; EP-CONVERT A HEADER FILE TO A XXX_HEADER FILE
VENPCCU+49: GP(FILE) ; EP-RETURNS THE IEN OF THE LOCAL GENERIC PROVIDER
VENPCCU+58: CFG() ; EP-RETURN THE CURRENT CONFIGURATION IEN
VENPCCU+63: OS() ; EP-RETURNS THE LOCAL OPERATING SYSTEM
VENPCCU+66: VEN() ; EP-M VENDOR
VENPCCU+69: CLASS(IEN,X) ; EP-FROM DATA DICTIONARY 19707.93
VENPCCU+79: STRIP(X) ; EP-STRIP BLANKS OFF BOTH ENDS OF A STRING
VENPCCU+83: NOW() ; EP-FROM MULTIPLE ROUTINES
VENPCCU+89: PRV1(DFN) ; EP-CONVERT FILE 200 DFN TO FILE 16 IEN
VENPCCU+102: CLASS2(IEN,X) ; EP-FROM THE DD 19707.1. COMPUTES A TRIGGERED VALUE
VENPCCU+111: DUR(D0) ; EP-FROM DD 19707.2 ; COMPUTES THE CURRENT DURATION OF WAITING TIME
VENPCCU+137: LEN(D0) ; EP-ELAPSED TIME, EXTERNAL FORMAT
VENPCCU+143: TESTTCP ; EP-TEST THE TCP SOCKET
VENPCCU+154: AQ(DA,X) ; EP-FROM THE DD TO CREATE A MUMPS XREF FOR VEN QUEUE
VENPCCU+161: AQ1(DA) ; EP-FROM THE DD TO DELETE THE AQ XREF FOR VEN QUEUE
VENPCCU+167: CP(DEPTIEN) ; EP-RETURNS THE DEFAULT PROVIDER FOR A GIVEN CLINIC
VENPCCU+172: PGRP(DEPTIEN,HSFLAG,PGRP) ; EP-RETURN THE PRINTER GROUP
VENPCCU+179: MRP() ; EP-RETURN THE MEDICAL RECORDS PRINTER GROUP
VENPCCU+185: SLASH(X) ; EP-PATH VALIDITY CHECKER INPUT TRANSFORM
VENPCCX+8: IMP(STG) ; EP-VISIT PLANNER ENTRY POINT
VENPCCX+61: SC(PRV,VISIT,VCN,CSIEN) ; EP-SCHEDULING PKG INTERFACE FROM ASDV
VENPCCX1+5: GET(EF,LIST,GRP) ; EP-GIVEN EF NAME, LIST NAME, & PT GRP NAME, RETURN LIST OF ITEMS
VENPCCX1+29: GNO(GRP) ; EP-GROUP NUMBER
VENPCCX1+37: STUFF(STG) ; EP-STUFF A LIST INTO THE SYSTEM PREF FILE
VENPCCX1+49: EF() ; EP-RETURN A LIST OF AVAILABLE ENCOUNTER FORMS
VENPCCX1+58: LIST(EF) ; EP-RETURN A ^ DELIMITED STRING CONTAINING ALL LISTS
VENPCCX1+80: DEPT() ; EP-SUPER BILL DEPTS
VENPCCX1+101: HS() ; EP-RETURN A LIST OF HEALTH SUMMARY TYPES
VENPCCX1+112: ADD(EF,CPT,PGRP,NAME,CODE) ; EP-ADD AN ENTRY TO A LIST
VENPCCX1+123: DEL(IEN) ; EP-DELETE AN ENTRY FROM THE LIST

```

Figure 8-1: Private Entry Points

## 8.6 Multi-facility Capability

PCC+ is capable of servicing multiple facilities simultaneously provided that all of those facilities share the same RPMS server and print server. TCP connectivity makes it possible to print documents anywhere within the IHS firewall.

## 9.0 PCC+ Options

OPTION	DESCRIPTION
VEN ADD A CLINIC	Add a PCC+ clinic.
VEN ADD A PRINT GROUP	Add a print group.
VEN CHECK ENVIRONMENT	Check RPMS environment prior to installation.
VEN CLONE ICD PREFERENCES	Clone a set of ICD9 preferences.
VEN CLONE ORDERABLE SET	Clone an order set.
VEN DELETE A CLINIC	Delete a clinic from the PCC+ clinic list.
VEN DELETE ICD PREFERENCES	Delete a user's ICD9 preferences.
VEN DELETE ORDERABLE SET	Delete a set of orders.
VEN EDIT ENCOUNTER FORM	Add, edit and validate an encounter forms.
VEN EDIT ICD PREFERENCES	M-based utility to fine tune the provider preference lists.
VEN EDIT ORDERABLES	M-based utility to fine tune the orderables list.
VEN EDIT PRINT GROUP	Edit print groups on the RPMS server.
VEN EF GENL DESCRIPTION	View the general description list for Encounter Forms.
VEN EF TECH DESCRIPTION	List technical parameters for all Encounter Forms.
VEN GET USER PREFERENCES	Mine the Database for ICD9 and CPT codes.
VEN HEADER SYNC	Report on header file synchronization.
VEN IMPORT ICD PREFERENCES	Import ICD9 preferences from Excel to VEN PCC ICD file.
VEN LIST PRINT GROUPS	List all print groups.
VEN MONITOR CHECK-IN QUEUE	Monitor the current set of check-in queues.
VEN MONITOR PRINT DEAMON	Monitor the print daemon.
VENPCC+ SYSTEM CHECK	Comprehensive analysis and report of PCC+ current status.
VEN PRINT ALL	Print all forms.
VEN PRINT CHECKIN LIST	Print a list of patients that have checked in during a specified time period at a specified location
VEN PRINT DEMO	Print a demo patient without creating a visit (for learning only).
VEN PRINT ENCOUNTER FORM	Print an Encounter Form only – no Health Summary.
VEN PRINT HEALTH SUMMARY	Print Health Summary only.
VEN PRINT GROUP SYNC	Report on print group synchronization.
VEN PRINT OUTGUIDE	Print Outguide only.
VEN REPRINT FORM	Reprint a form without creating another visit. (For use with Scheduling package only!)

OPTION	DESCRIPTION
VEN RESTART	Reset and restart PCC+.
VEN START PRINT DEAMON	Start the print daemon.
VEN STOP PRINT DEAMON	Stop the print daemon.
VEN TEMPLATE SYNC	Report on template synchronization.
VENMENU	Main menu for managing and printing Encounter Forms.
VEN_INSTALL	Installation utilities.
VEN_MGR	Manager's main menu for the Encounter Form Package.
VEN_PRINT	Print PCC+ documents.

## 10.0 PCC+ Routines

VENPCC	Check-in module for use with the print server.
VENPCC1	Create the ILC encounter form.
VENPCC1A	Gets overflow from VENPCC1.
VENPCC1B	VENPCC1 Overflow GIS/ILC.
VENPCC1C	More data mining for Encounter Forms.
VENPCC1D	Health maintenance reminders for Encounter Forms.
VENPCC2	Health Summary generator.
VENPCC3	Check-in utilities.
VENPCCD	Update demographics and insurance info.
VENPCCD1	Patient demographic update – continuation.
VENPCCG	Get ICD9 and CPT preferences.
VENPCCG1	Get ICD9 and CPT preferences: sorter.
VENPCCG2	Get ICD9 and CPT preferences: filer.
VENPCCG3	Get ICD9 and CPT preferences.
VENPCCG4	Export ICD9 preferences from excel to the user preference files.
VENPCCM1	Utilities to synchronize the servers.
VENPCCM2	Utilities to synchronize the servers – continuation.
VENPCCM3	Utilities to manage print groups, clinics, and queue types.
VENPCCM4	Utilities to manage templates.
VENPCCMC	Comprehensive PCC+ checkup
VENPCCMD	User preference manager for Dx - the RPMS configuration editor.
VENPCCME	Environment checker.
VENPCCMF	Queuing file management utilities.
VENPCCMI	Installation utilities for Encounter Forms and printer groups.
VENPCCML	Utilities for managing user preferences
VENPCCMP	User preference manager - the RPMS configuration editor.
VENPCCMX	Print daemon monitor.
VENPCCOH	Display VEN option header.
VENPCCP	Print daemon - manage background printing.
VENPCCU	VEN utilities.
VENPCCX	Interfaces to external check-in processes.
VENPCCX1	Interfaces to external check-in processes – continuation.
VENPCCI*	Installation utilities (Class III software not distributed with the PCC+ release. To be used only by certified support personnel)



## 11.0 PCC+ Files and Cross References

### 11.1 VEN EHP ICD Preferences File

STANDARD DATA DICTIONARY #19707.1 -- VEN EHP ICD PREFERENCES FILE 03/11/01  
STORED IN ^VEN(7.1, (VERSION 1.22))

This file contains the preferred diagnoses for individual providers and provider groups for eight demographic categories. It should not be edited directly but rather via the user preference editor: ^VENPCCMD.

IDENTIFIED BY: ICD DX (#.02)

CROSS REFERENCED BY: ICD DX(AC), CLASS(AD), GROUP(AG), PROVIDER(B)

```
19707.1,.01    PROVIDER          0;1 POINTER TO NEW PERSON FILE (#200)
                (Required)
                LAST EDITED:      SEP 29, 1999
                CROSS-REFERENCE:  19707.1^B
                                1)= S ^VEN(7.1,"B",$E(X,1,30),DA)=""
                                2)= K ^VEN(7.1,"B",$E(X,1,30),DA)

19707.1,.02    ICD DX           0;2 FREE TEXT
                INPUT TRANSFORM:  K:$L(X)>30!($L(X)<1) X
                LAST EDITED:      OCT 05, 2000
                HELP-PROMPT:      Answer must be 1-30 characters in length.
                CROSS-REFERENCE:  19707.1^AC
                                1)= S ^VEN(7.1,"AC",$E(X,1,30),DA)=""
                                2)= K ^VEN(7.1,"AC",$E(X,1,30),DA)

19707.1,.03    PRINTED NAME     0;3 FREE TEXT
                INPUT TRANSFORM:  K:$L(X)>40!($L(X)<1) X
                LAST EDITED:      OCT 04, 1999
                HELP-PROMPT:      Answer must be 1-40 characters in length.

19707.1,.04    CLASS            0;4 SET
                                '1' FOR INFANT;
                                '2' FOR CHILD;
                                '3' FOR TEEN MALE;
                                '4' FOR TEEN FEMALE;
                                '5' FOR ADULT MALE;
                                '6' FOR ADULT FEMALE;
                                '7' FOR SENIOR MALE;
                                '8' FOR SENIOR FEMALE;
                LAST EDITED:      DEC 10, 2000
                CROSS-REFERENCE:  19707.1^AD
                                1)= S ^VEN(7.1,"AD",$E(X,1,30),DA)=""
                                2)= K ^VEN(7.1,"AD",$E(X,1,30),DA)
                CROSS-REFERENCE:  ^^TRIGGER^19707.1^.05
                                1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S
Y(1)=$S($D
                                (^VEN(7.1,D0,0)):^(0),1:"") S
X=$P(Y(1),U,5),X
```

X=\$\$CLASS2^VENPCCU(D0		=X S DIU=X K Y S X=DIV S
		,X) X ^DD(19707.1,.04,1,2,1.4)
		1.4)= S
DIH=\$S(\$D(^VEN(7.1,DIV(0),0)):^(0),1:"		"),DIV=X S
\$P(^ (0),U,5)=DIV,DIH=19707.1,DIG=.0		5 D ^DICR:\$O(^DD(DIH,DIG,1,0))>0
		2)= Q
		CREATE VALUE)= S X=\$\$CLASS2^VENPCCU(D0,X)
		DELETE VALUE)= NO EFFECT
		FIELD)= GROUP
19707.1,.05	GROUP	0;5 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<2) X
	LAST EDITED:	DEC 10, 2000
	HELP-PROMPT:	Answer must be 2-30 characters in length.
	NOTES:	TRIGGERED by the CLASS field of the VEN EHP
		ICD PREFERENCES File
	CROSS-REFERENCE:	19707.1^AG
		1)= S ^VEN(7.1,"AG",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.1,"AG",\$E(X,1,30),DA)
<b>FILES POINTED TO</b>		<b>FIELDS</b>
NEW PERSON (#200)		PROVIDER (#.01)
INPUT TEMPLATE(S):		
PRINT TEMPLATE(S):		
SORT TEMPLATE(S):		

## 11.2 VEN Queue File

STANDARD DATA DICTIONARY #19707.2 -- VEN QUEUE FILE				09/13/01	PAGE 1
STORED IN ^VEN(7.2, (49942 ENTRIES)				SITE: CROW HOME	UCI: PRD,BCR
(VERSION					
1.1p1)					
DATA	NAME	GLOBAL	DATA		
ELEMENT	TITLE	LOCATION	TYPE		
-----					
Stores info about all queues - both people and paper.					
IDENTIFIED BY: QUEUE TYPE (#.03),STATUS (#.05),PATIENT (#1.1)					
POINTED TO BY: PARENT QUEUE field (#.09) of the VEN QUEUE File (#19707.2)					
ACTIVE QUEUE field (#.02) of the BTR SESSION LOG File					
(#1410053)					
CROSS					
REFERENCED BY: STATUS(AC), QUEUE DESTINATION(AD), PARENT QUEUE(AE),					
PATIENT(AP), QUEUE ORIGIN(AQ), VISIT(AV), TIME IN(B)					

19707.2,.01	TIME IN	0;1 DATE (Required)
	INPUT TRANSFORM:	S %DT="ESTXR" D ^%DT S X=Y K:Y<1 X
	LAST EDITED:	OCT 20, 2000
	CROSS-REFERENCE:	19707.2^B 1)= S ^VEN(7.2,"B",\$E(X,1,30),DA)="" 2)= K ^VEN(7.2,"B",\$E(X,1,30),DA)
	CROSS-REFERENCE:	^^TRIGGER^19707.2^.05 1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S Y(1)=\$S(\$D(^VEN(7.2,D0,0)):^(0),1:"") S X=\$P(Y(1),U,5),X=X S DIU=X K Y S X=DIV S X=1 X ^DD(19707.2,.01,1,2,1.4)  1.4)= S DIH=\$S(\$D(^VEN(7.2,DIV(0),0)):^(0),1:""),DIV=X S \$P(^0,U,5)=DIV,DIH=19707.2,DIG=.05 D ^DICR:\$O(^DD(DIH,DIG,1,0))>0  2)= Q  CREATE VALUE)= S X=1 DELETE VALUE)= NO EFFECT FIELD)= STATUS
19707.2,.02	TIME OUT	0;2 DATE
	INPUT TRANSFORM:	S %DT="ESTXR" D ^%DT S X=Y K:Y<1 X
	LAST EDITED:	OCT 20, 2000
	CROSS-REFERENCE:	^^TRIGGER^19707.2^.08 1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S Y(1)=\$S(\$D(^VEN(7.2,D0,0)):^(0),1:"") S X=\$P(Y(1),U,8),X=X S DIU=X K Y S X=DIV S X=\$\$LEN^VENPCCU(D0) X ^DD(19707.2,.02,1,1,1.4)  1.4)= S DIH=\$S(\$D(^VEN(7.2,DIV(0),0)):^(0),1:""),DIV=X S \$P(^0,U,8)=DIV,DIH=19707.2,DIG=.08 D ^DICR:\$O(^DD(DIH,DIG,1,0))>0  2)= Q  CREATE VALUE)= S X=\$\$LEN^VENPCCU(D0) DELETE VALUE)= NO EFFECT FIELD)= DURATION
	CROSS-REFERENCE:	^^TRIGGER^19707.2^.05 1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S Y(1)=\$S(\$D(^VEN(7.2,D0,0)):^(0),1:"") S X=\$P(Y(1),U,5),X=X S DIU=X K Y S X=DIV S X=0 X ^DD(19707.2,.02,1,2,1.4)  1.4)= S DIH=\$S(\$D(^VEN(7.2,DIV(0),0)):^(0),1:""),DIV=X S \$P(^0,U,5)=DIV,DIH=19707.2,DIG=.05 D ^DICR:\$O(^DD(DIH,DIG,1,0))>0

		2)= Q
		CREATE VALUE)= S X=0 DELETE VALUE)= NO EFFECT FIELD)= STATUS
19707.2,.03	QUEUE TYPE	0;3 POINTER TO VEN QUEUE TYPE FILE (#19707.22)
	LAST EDITED:	OCT 20, 2000
19707.2,.04	QUEUE DESTINATION	0;4 POINTER TO VEN EHP CLINIC FILE (#19707.95)
	LAST EDITED:	FEB 20, 2001
	CROSS-REFERENCE:	19707.2^AD 1)= S ^VEN(7.2,"AD",\$E(X,1,30),DA)="" 2)= K ^VEN(7.2,"AD",\$E(X,1,30),DA)
19707.2,.05	STATUS	0;5 SET
		'1' FOR PENDING; '0' FOR RESOLVED; '4' FOR CANCELLED; '2' FOR ACTIVE; '-2' FOR EXPIRED; '3' FOR STANDBY; '-1' FOR DONT USE ANYMORE;
	LAST EDITED:	FEB 28, 2001
	NOTES:	TRIGGERED by the TIME OUT field of the VEN QUEUE File TRIGGERED by the TIME IN field of the VEN QUEUE File
	CROSS-REFERENCE:	19707.2^AC 1)= S ^VEN(7.2,"AC",\$E(X,1,30),DA)="" 2)= K ^VEN(7.2,"AC",\$E(X,1,30),DA)
19707.2,.06	ORIGINATOR	0;6 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	OCT 20, 2000
19707.2,.07	RECIPIENT	0;7 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	OCT 20, 2000
19707.2,.08	DURATION	0;8 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<1) X
	LAST EDITED:	OCT 20, 2000
	HELP-PROMPT:	Answer must be 1-30 characters in length.
	WRITE AUTHORITY:	^
	NOTES:	TRIGGERED by the TIME OUT field of the VEN

QUEUE File		
19707.2,.09	PARENT QUEUE	0;9 POINTER TO VEN QUEUE FILE (#19707.2)
	LAST EDITED:	OCT 20, 2000
	CROSS-REFERENCE:	19707.2^AE 1)= S ^VEN(7.2,"AE",\$E(X,1,30),DA)="" 2)= K ^VEN(7.2,"AE",\$E(X,1,30),DA)
19707.2,.1	CANCELLED BY	0;10 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	NOV 08, 2000
19707.2,.11	ACTIVE USER	0;11 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	NOV 11, 2000
19707.2,.12	QUEUE ORIGIN	0;12 POINTER TO VEN EHP CLINIC FILE (#19707.95)
	LAST EDITED:	FEB 20, 2001
	CROSS-REFERENCE:	19707.2^AQ^MUMPS 1)= D AQ^VENPCCU(DA,X) 2)= D AQ1^VENPCCU(DA)
19707.2,1	ELAPSED TIME	; COMPUTED
	MUMPS CODE:	S X=\$\$DUR^VENPCCU(D0)
	ALGORITHM:	S X=\$\$DUR^VENPCCU(D0)
	LAST EDITED:	DEC 01, 2000
19707.2,1.1	PATIENT	1;1 POINTER TO VA PATIENT FILE (#2)
	LAST EDITED:	FEB 14, 2001
	CROSS-REFERENCE:	19707.2^AP 1)= S ^VEN(7.2,"AP",\$E(X,1,30),DA)="" 2)= K ^VEN(7.2,"AP",\$E(X,1,30),DA)
	CROSS-REFERENCE:	^^TRIGGER^19707.2^1.3 1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S Y(1)=\$S(\$D(^VEN(7.2,D0,1)):^(1),1:"") S X=\$P(Y(1),U,3),X=X S DIU=X K Y S X=DIV S X=\$\$HRN^AUPNPAT(X,+\$G(DUZ(2))) X ^DD(19707.2,1.1,1,2,1.4)  1.4)= S DIH=\$S(\$D(^VEN(7.2,DIV(0),1)):^(1),1:""),DIV=X S \$P(^1,U,3)=DIV,DIH=19707.2,DIG=1.3 D ^DICR:\$O(^DD(DIH,DIG,1,0))>0  2)= Q  CREATE VALUE)= S X=\$\$HRN^AUPNPAT(X,+\$G(DUZ(2))) DELETE VALUE)= NO EFFECT

FIELD)= HRN	
19707.2,1.2	VISIT 1;2 POINTER TO VISIT FILE (#9000010)
	LAST EDITED: NOV 20, 2000 CROSS-REFERENCE: 19707.2^AV 1)= S ^VEN(7.2,"AV",\$E(X,1,30),DA)="" 2)= K ^VEN(7.2,"AV",\$E(X,1,30),DA)
19707.2,1.3	HRN 1;3 FREE TEXT
	INPUT TRANSFORM: K:\$L(X)>15!(\$L(X)<1) X LAST EDITED: FEB 14, 2001 HELP-PROMPT: Answer must be 1-15 characters in length. NOTES: TRIGGERED by the PATIENT field of the VEN QUEUE File
19707.2,2	IMAGE LOCATION 2;E1,245 FREE TEXT
	INPUT TRANSFORM: K:\$L(X)>240!(\$L(X)<1) X LAST EDITED: OCT 20, 2000 HELP-PROMPT: Answer must be 1-240 characters in length.
19707.2,3	CHART REQUEST DESTINATION 3;1 FREE TEXT
	INPUT TRANSFORM: K:\$L(X)>200!(\$L(X)<1) X LAST EDITED: APR 27, 2001 HELP-PROMPT: Answer must be 1-200 characters in length.
19707.2,302	MED. RECORDS INITIALS 3;2 FREE TEXT
	INPUT TRANSFORM: K:\$L(X)>6!(\$L(X)<2) X LAST EDITED: APR 18, 2001 HELP-PROMPT: Answer must be 2-6 characters in length.
19707.2,303	IMAGE ID 3;3 FREE TEXT
	INPUT TRANSFORM: K:\$L(X)>40!(\$L(X)<1) X LAST EDITED: APR 19, 2001 HELP-PROMPT: Answer must be 1-40 characters in length.
FILES POINTED TO	
FIELDS	
NEW PERSON (#200)	ORIGINATOR (#.06) RECIPIENT (#.07) CANCELLED BY (#.1) ACTIVE USER (#.11)
VA PATIENT (#2)	PATIENT (#1.1)
VEN EHP CLINIC (#19707.95)	QUEUE DESTINATION (#.04) QUEUE ORIGIN (#.12)

VEN QUEUE (#19707.2)	PARENT QUEUE (#.09)
VEN QUEUE TYPE (#19707.22)	QUEUE TYPE (#.03)
VISIT (#9000010)	VISIT (#1.2)
INPUT TEMPLATE(S):	
PRINT TEMPLATE(S):	
SORT TEMPLATE(S):	

## 11.3 VEN Queue Type File

STANDARD DATA DICTIONARY #19707.22 -- VEN QUEUE TYPE FILE 03/11/01  
 STORED IN ^VEN(7.22, (VERSION1.12)

The VEN QUEUE file stores many types of queues. Some queues involve people and others involve paper. This file contains a list of the types of queues that may be present in the VEN QUEUE FILE. Each queue type has a list of users that are allowed to access that queue.

POINTED TO BY: QUEUE TYPE field (#.03) of the VEN QUEUE File (#19707.2)

CROSS REFERENCED BY: USER(AC), NAME(B)

19707.22,.01 NAME 0;1 FREE TEXT (Required)  
 INPUT TRANSFORM: K:\$L(X)>30!(X?.N)!(\$L(X)<3)!('X'?1P.E) X  
 HELP-PROMPT: NAME MUST BE 3-30 CHARACTERS, NOT NUMERIC OR  
 STARTING WITH PUNCTUATION  
 CROSS-REFERENCE: 19707.22^B  
 1)= S ^VEN(7.22,"B",\$E(X,1,30),DA)=""  
 2)= K ^VEN(7.22,"B",\$E(X,1,30),DA)

19707.22,1 USER 1;0 POINTER Multiple #19707.221

19707.221,.01 USER 0;1 POINTER TO NEW PERSON FILE (#200)  
 (Multiply asked)  
 LAST EDITED: JAN 05, 2001  
 CROSS-REFERENCE: 19707.221^B  
 1)= S  
 ^VEN(7.22,DA(1),1,"B",\$E(X,1,30),DA)=""  
 "  
 2)= K ^VEN(7.22,DA(1),1,"B",\$E(X,1,30),DA)  
 CROSS-REFERENCE: 19707.22^AC  
 1)= S  
 ^VEN(7.22,"AC",\$E(X,1,30),DA(1),DA)=""  
 2)= K ^VEN(7.22,"AC",\$E(X,1,30),DA(1),DA)

### FILES POINTED TO

### FIELDS

NEW PERSON (#200)	USER:USER (#.01)
INPUT TEMPLATE(S):	

```
PRINT TEMPLATE(S):
SORT TEMPLATE(S):
```

## 11.4 VEN EHP Printer Group File

```
STANDARD DATA DICTIONARY #19707.4 -- VEN EHP PRINTER GROUP FILE 03/11/01
STORED IN ^VEN(7.4, (VERSION 1.22)
```

This file contains printer groups used by the encounter form print service. Each printer group is associated with one or more departments.

```
POINTED TO BY: PRINTER GROUP field (#2.01) of the VEN EHP CLINIC File
                (#19707.95)
                PRINTER GROUP field (#2.01) of the SUPER BILL DEPARTMENT File
                (#9002301.5)
```

```
CROSS REFERENCED BY: MED RECORDS PRINTER GROUP (AC), NAME (B)
```

```
19707.4,.01  NAME          0;1 FREE TEXT (Required)
              INPUT TRANSFORM: K:$L(X)>30!($L(X)<3)!'(X'?1P.E) X
              LAST EDITED:   MAR 07, 2001
              HELP-PROMPT:   Answer must be 3-30 characters in length.
                              Format: facility_location; e.g., 'CROW_WALK
```

IN

```
              CLINIC'.
              DESCRIPTION:   The name of the printer group in the format
                              facility_location; e.g., CROW_WALK IN CLINIC
              CROSS-REFERENCE: 19707.4^B
                              1)= S ^VEN(7.4,"B",$E(X,1,30),DA)=""
                              2)= K ^VEN(7.4,"B",$E(X,1,30),DA)
```

```
19707.4,.02  MED RECORDS PRINTER GROUP 0;2 SET
              Print Group located in Med Redcords Dept?
                              '1' FOR YES;
                              '0' FOR NO;
              LAST EDITED:   DEC 20, 2000
              HELP-PROMPT:   Answer 'YES' if this is the printer group
                              associated with the medical records
                              department.
              DESCRIPTION:   Answer 'YES' if this is the printer group
```

used

```
              by medical records.
              CROSS-REFERENCE: 19707.4^AC
                              1)= S ^VEN(7.4,"AC",$E(X,1,30),DA)=""
                              2)= K ^VEN(7.4,"AC",$E(X,1,30),DA)
```

```
19707.4,1    DESCRIPTION  1;0  WORD-PROCESSING #19707.43
```

```
INPUT TEMPLATE(S):
PRINT TEMPLATE(S):
VEN MASTER PRINTER LIST      FEB 06, 2001@17:37  USER #0      PRINTER GROUPS
SORT TEMPLATE(S):
```



## 11.5 VEN EHP EF Templates File

```

STANDARD DATA DICTIONARY #19707.41 -- VEN EHP EF TEMPLATES FILE    03/11/01

STORED IN ^VEN(7.41,      (VERSION 1.22)

This file holds information about the encounter form templates used at this
facility.

POINTED TO BY: FORM field (#.11) of the VEN EHP ORDERABLES File (#19707.93)
                DEFAULT ENCOUNTER FORM field (#2.05) of the VEN EHP CLINIC File
                (#19707.95)
                DEFAULT ENCOUNTER FORM field (#2.05) of the SUPER BILL
                DEPARTMENT File (#9002301.5)

CROSS REFERENCED BY: TEMPLATE(B)

19707.41,.01  TEMPLATE          0;1 FREE TEXT (Required)
              INPUT TRANSFORM:  K:$L(X)>30!($L(X)<3)!'(X'?1P.E) X
              LAST EDITED:      JUN 23, 2000
              HELP-PROMPT:      Answer must be 3-30 characters in length.
              DESCRIPTION:      The full name of the encounter form template;
                                e.g., CROW MEDICAL
              CROSS-REFERENCE:  19707.41^B
                                1)= S ^VEN(7.41,"B", $E(X,1,30),DA)=" "
                                2)= K ^VEN(7.41,"B", $E(X,1,30),DA)

19707.41,.02  HEADER MNEMONIC  0;2 FREE TEXT
              INPUT TRANSFORM:  K:$L(X)>30!($L(X)<1) X
              LAST EDITED:      JUN 23, 2000
              HELP-PROMPT:      1-9 lowercase character mnemonic corresponding
                                to the encounter form template file name; e.g.
                                'wic' associated with the 'wic_template.doc'
                                file.
              DESCRIPTION:      This is a 1-9 character, lower case mnemonic
                                used in the file name of the encounter form
                                template; e.g. wic (for walk in clinic)

19707.41,.03  TEMPLATE MNEMONIC 0;3 FREE TEXT
              INPUT TRANSFORM:  K:$L(X)>30!($L(X)<1) X
              LAST EDITED:      JUN 23, 2000
              HELP-PROMPT:      Answer must be 1-30 characters in length.

19707.41,.04  BARCODE CHARACTER 0;4 FREE TEXT
              INPUT TRANSFORM:  K:$L(X)>1!($L(X)<1) X
              LAST EDITED:      AUG 13, 2000
              HELP-PROMPT:      Answer must be 1 character in length, A-z.
                                This character must not be used by any other
                                template.
              DESCRIPTION:      Each template has a single unique alpha
                                character associated with it that is inserted
                                into the barcode printed on the bottom of the
                                form.

19707.41,.05  VERSION NUMBER    0;5 NUMBER
              INPUT TRANSFORM:  K:+X'=X!(X>99)!(X<1)!(X?.E1"."3N.N) X
              LAST EDITED:      FEB 06, 2001
              HELP-PROMPT:      Type a Number between 1 and 99, 2 Decimal
                                Digits

19707.41,.06  DATE CREATED      0;6 DATE
              INPUT TRANSFORM:  S %DT="EX" D ^%DT S X=Y K:Y<1 X
              LAST EDITED:      FEB 06, 2001

```

19707.41,.07	WHERE CREATED	0;7 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>18!(\$L(X)<1) X
	LAST EDITED:	FEB 06, 2001
	HELP-PROMPT:	Answer must be 1-18 characters in length.
19707.41,.08	CREATED BY	0;8 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<1) X
	LAST EDITED:	FEB 06, 2001
	HELP-PROMPT:	Answer must be 1-30 characters in length.
19707.41,1.1	MAX PROBLEMS	1;1 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>20)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 20, 0 Decimal Digits
	DESCRIPTION:	Maximum number of problems allowed on the encounter form
19707.41,1.2	MAX POVS	1;2 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>60)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 60, 0 Decimal Digits
	DESCRIPTION:	Maximum number of POVs allowed on the encounter form.
19707.41,1.3	MAX DX EXAMS	1;3 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>20)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 20, 0 Decimal Digits
	DESCRIPTION:	Maximum number of diagnostic exams allowed on the encounter form.
19707.41,1.4	MAX REMINDERS	1;4 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>100)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	NOV 11, 2000
	HELP-PROMPT:	Type a Number between 0 and 100, 0 Decimal Digits
	DESCRIPTION:	Maximum number of health maintenance reminders allowed on the encounter form
19707.41,1.5	MAX IMMUNIZATIONS	1;5 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>10)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 10, 0 Decimal Digits
	DESCRIPTION:	Maximum number of immunizations allowed on the encounter form.
19707.41,1.6	MAX INJECTIONS	1;6 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>20)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 20, 0 Decimal Digits
	DESCRIPTION:	Maximum number of injections allowed on the encounter form
19707.41,1.7	MAX LAB	1;7 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>20)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001

	HELP-PROMPT:	Type a Number between 0 and 20, 0 Decimal Digits
	DESCRIPTION:	Maximum number of lab tests allowed on the encounter form.
19707.41,1.8	MAX PAT ED	1;8 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>20)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 20, 0 Decimal Digits
	DESCRIPTION:	Maximum number of patient ed topics allowed on the encounter form.
19707.41,1.9	MAX PHYS EXAM	1;9 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>100)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	NOV 11, 2000
	HELP-PROMPT:	Type a Number between 0 and 100, 0 Decimal Digits
	DESCRIPTION:	Maximum number of physical exam items allowed on this encounter form.
19707.41,2.1	MAX RADIOLOGY EXAM	2;1 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>25)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 25, 0 Decimal Digits
	DESCRIPTION:	Maximum number of radiology exams allowed on this encounter form.
19707.41,2.2	MAX SUPPLIES	2;2 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>15)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 15, 0 Decimal Digits
	DESCRIPTION:	Maximum number of supplies allowed on this encounter form.
19707.41,2.3	MAX TREATMENTS	2;3 NUMBER
	INPUT TRANSFORM:	K:+X'=X!(X>20)!(X<0)!(X?.E1"."1N.N) X
	LAST EDITED:	JAN 24, 2001
	HELP-PROMPT:	Type a Number between 0 and 20, 0 Decimal Digits
	DESCRIPTION:	Maximum number of treatments allowed on this encounter form.
19707.41,3	DESCRIPTION	3;0 WORD-PROCESSING #19707.413
INPUT TEMPLATE(S) :		
PRINT TEMPLATE(S) :		
VEN EF PARAMETERS		FEB 06, 2001@18:35 USER #0
VEN EF TEMPLATES LIST		FEB 06, 2001@18:20 USER #0
		ENCOUNTER FORM LIST
SORT TEMPLATE(S) :		

## 11.6 VEN EHP Header Field File

STANDARD DATA DICTIONARY #19707.42 -- VEN EHP HEADER FIELD FILE 03/11/01  
STORED IN ^VEN(7.42, (1460 ENTRIES) (VERSION 1.22)

This file contains a list of mail merge header names for each PCC+ header file. This file should not be edited.

POINTED TO BY: HEADER FIELD field (#.03) of the VEN EHP ORDERABLES File  
(#19707.93)  
HEADER FIELD field (#.03) of the VEN EHP TICKLERS File  
(#19707.94)

CROSS REFERENCED BY: HEADER FILE MNEMONIC(AC), SYSTEM FIELD(AS), HEADER FIELD(B)

19707.42,.01 HEADER FIELD 0;1 FREE TEXT (Required)  
INPUT TRANSFORM: K:\$L(X)>30!(\$L(X)<1)!'(X'?1P.E) X  
LAST EDITED: JUL 21, 2000  
HELP-PROMPT: Answer must be 1-30 characters in length.  
CROSS-REFERENCE: 19707.42^B  
1)= S ^VEN(7.42,"B",\$E(X,1,30),DA)=""  
2)= K ^VEN(7.42,"B",\$E(X,1,30),DA)

19707.42,.02 HEADER FILE MNEMONIC 0;2 SET  
'1' FOR ef;  
'2' FOR hs;  
LAST EDITED: NOV 14, 2000  
CROSS-REFERENCE: 19707.42^AC  
1)= S ^VEN(7.42,"AC",\$E(X,1,30),DA)=""  
2)= K ^VEN(7.42,"AC",\$E(X,1,30),DA)

19707.42,.03 SYSTEM FIELD 0;3 SET  
'1' FOR PREFERENCE;  
'2' FOR TICKLER;  
LAST EDITED: DEC 09, 2000  
CROSS-REFERENCE: 19707.42^AS  
1)= S ^VEN(7.42,"AS",\$E(X,1,30),DA)=""  
2)= K ^VEN(7.42,"AS",\$E(X,1,30),DA)

19707.42,1 DESCRIPTION 1;0 WORD-PROCESSING #19707.421

INPUT TEMPLATE(S):  
PRINT TEMPLATE(S):  
SORT TEMPLATE(S):

## 11.7 VEN EHP Configuration File

STANDARD DATA DICTIONARY #19707.5 -- VEN EHP CONFIGURATION FILE 03/11/01  
STORED IN ^VEN(7.5, (3 ENTRIES) (VERSION 1.22)

Contains configuration parameters for PCC+

CROSS REFERENCED BY: THIS IS THE DEFAULT CONFIG(AC), NAME(B), SITE(C)

19707.5,.01	NAME	0;1 FREE TEXT (Required)
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<3) X
	LAST EDITED:	MAY 21, 2000
	HELP-PROMPT:	Answer must be 3-30 characters in length.
	DESCRIPTION:	Name of configuration: e.g., UNIX AND WINDOWS NT2000
	CROSS-REFERENCE:	19707.5^B 1)= S ^VEN(7.5,"B",\$E(X,1,30),DA)="" 2)= K ^VEN(7.5,"B",\$E(X,1,30),DA)
19707.5,.02	CHART NO IS DFN	0;2 SET '1' FOR YES; '0' FOR NO;
	LAST EDITED:	JAN 26, 2000
	HELP-PROMPT:	Answer 'YES' if chart number and DFN are identical at this facility
	DESCRIPTION:	Answer "YES" if the chart number and DFN are identical at this facility
19707.5,.03	TYPE	0;3 SET 'I' FOR IHS; 'T' FOR TRIBAL; '6' FOR 638; 'P' FOR PRIVATE PRACTICE;
	LAST EDITED:	FEB 20, 2000
	HELP-PROMPT:	Enter 'I' for IHS
	DESCRIPTION:	Type of facility
19707.5,.04	OPERATING SYSTEM	0;4 SET '1' FOR UNIX; '0' FOR WIN/NT;
	LAST EDITED:	OCT 20, 2000
	HELP-PROMPT:	Enter '1' if the OS is UNIX
	DESCRIPTION:	Type of operating system on the RPMS server
19707.5,.05	M VENDOR	0;5 SET '1' FOR MSM; '2' FOR INTERSYSTEMS;
	LAST EDITED:	NOV 09, 2000
	HELP-PROMPT:	Enter 1 if the RPMS server runs Micronetics M or enter 2 if it is Intersystems
	DESCRIPTION:	M Vendor: either MSM or Cache
19707.5,.06	UNIQUE CLINIC	0;6 POINTER TO VEN EHP CLINIC FILE(#19707.95)
	LAST EDITED:	DEC 17, 2000
	HELP-PROMPT:	If this site has only one clinic that uses the new encounter form, enter the name of the clinic here
	DESCRIPTION:	Only used if the site has just one clinic in

		operation!
19707.5,.07	THIS IS THE DEFAULT CONFIG 0;7 SET	'1' FOR YES;
	LAST EDITED:	JAN 09, 2001
	HELP-PROMPT:	Enter 'YES' if this is the default configuration
	DESCRIPTION:	Enter 'YES' if this is the default configuration
	CROSS-REFERENCE:	19707.5^AC
		1)= S ^VEN(7.5,"AC",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.5,"AC",\$E(X,1,30),DA)
19707.5,.08	EDIT DEMOG DURING CKIN 0;8 SET	'1' FOR YES;
		'0' FOR NO;
	LAST EDITED:	SEP 27, 2000
	HELP-PROMPT:	Will the Check-in Clerk be updating demographic info? If so answer 'YES'
	DESCRIPTION:	Enter 'YES' to prompt check in clerk to
update		demographic info
19707.5,.09	ASK TO PULL CHART 0;9 SET	'1' FOR YES;
		'0' FOR NO;
	LAST EDITED:	OCT 31, 2000
	HELP-PROMPT:	During check in, do you need to ask if chart should be pulled? If so, enter 'YES'.
	DESCRIPTION:	During check in, do you need to ask if chart should be pulled?
19707.5,.1	ALWAYS PRINT HS IN MED REC 0;10 SET	'1' FOR YES;
		'0' FOR NO;
	LAST EDITED:	OCT 06, 2000
	HELP-PROMPT:	If Health Summary is always printed in the medical records department, answer 'YES'.
	DESCRIPTION:	Is health summary always printed in the Medical Records Department?
19707.5,.11	MONITOR DATA EXTRACTION 0;11 SET	'1' FOR YES;
		'0' FOR NO;
	LAST EDITED:	OCT 19, 2000
	HELP-PROMPT:	During set up, set this param to '1' to monitor the data extraction process (a background job),
	DESCRIPTION:	During testing/setup, this param can be set
to		'1', to monitor the data extraction process,
a		background job.
19707.5,.12	BYPASS PRINTING 0;12 SET	'1' FOR YES;
		'0' FOR NO;

	LAST EDITED:	OCT 19, 2000
	HELP-PROMPT:	This parameter should only be set to '1' during testing and set up
	DESCRIPTION:	During set up, this parameter can be set to '1' to turn off the print daemon to test the data extraction process.
19707.5,.13	GENERIC PROVIDER	0;13 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	MAR 05, 2001
	DESCRIPTION:	Each site should have at least one 'Generic Provider' that can be used to set preferences
19707.5,.14	DEMO PATIENT	0;14 POINTER TO VA PATIENT FILE (#2)
	LAST EDITED:	NOV 21, 2000
	HELP-PROMPT:	Enter the name of the patient that is used
for		
	DESCRIPTION:	demos; e.g., DEMO,PATIENT Each site must have at least one Demo Patient for test purposes
19707.5,.15	INS INFO AVAILABLE	0;15 SET
		'1' FOR YES;
		'0' FOR NO;
	LAST EDITED:	NOV 02, 2000
	HELP-PROMPT:	Enter 'YES' if this site collects info about ea patients 3rd party payors.
	DESCRIPTION:	If 'YES', this site collects information
about		
		3rd party payors
19707.5,.16	CHRONIC MEDS ONLY	0;16 SET
		'1' FOR YES;
		'0' FOR NO;
	LAST EDITED:	NOV 20, 2000
	HELP-PROMPT:	Answer 'YES' to print only chronic meds on
the		
	DESCRIPTION:	encounter form. Print only chronic meds on the encounter forms.
19707.5,.17	BACKGROUND MODE	0;17 SET
		'1' FOR TASKMAN;
		'0' FOR DIRECT;
	LAST EDITED:	DEC 13, 2000
19707.5,1	PATH TO PRINT FOLDER	1;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	MAY 19, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length. Must be a legal path name with a terminal slash.
	DESCRIPTION:	Path to print folder on the RPMS server
19707.5,2	PATH TO PCCS HEADER FILE	2;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X

	LAST EDITED:	MAY 19, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length. Must be a legal path name with a terminal slash.
	DESCRIPTION:	Path to the folder that stores the header files on the RPMS server
19707.5,3	PATH TO TEMP FILE	3;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	MAY 19, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length. Must be a legal path name terminating with a slash.
	DESCRIPTION:	Path to the folder that holds temporary files created during the data extraction process
19707.5,4	PRINT SERVER PATH	4;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	MAY 19, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.
19707.5,5	PRINT SERVER PATH	TO PRINT 5;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	MAY 19, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.
19707.5,6	PATH TO SUPERBILL FILES	6;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	JUN 01, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.
19707.5,7	PATH TO SUPERBILL OUTBOX	7;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	JUN 01, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.
19707.5,8	PATH TO SUPERBILL ERROR FILE	8;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	JUN 01, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.
19707.5,9.1	BILLING SYSTEM	9;1 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<1) X
	LAST EDITED:	JUN 01, 2000
	HELP-PROMPT:	Answer must be 1-30 characters in length.
19707.5,9.2	SUPERBILL PARSER	9;2 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<1) X
	LAST EDITED:	JUN 01, 2000
	HELP-PROMPT:	Answer must be 1-30 characters in length.
19707.5,9.3	EOF STRING	9;3 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>180!(\$L(X)<1) X
	LAST EDITED:	JUN 01, 2000
	HELP-PROMPT:	Answer must be 1-180 characters in length.
19707.5,10	SITE	10;0 POINTER Multiple #19707.51



19707.51,.01 SITE 0;1 POINTER TO INSTITUTION FILE (#4)  
(Multiply asked)  
LAST EDITED: JUN 13, 2000  
CROSS-REFERENCE: 19707.51^B  
1)= S ^VEN(7.5,DA(1),10,"B",\$E(X,1,30),DA)=""  
2)= K ^VEN(7.5,DA(1),10,"B",\$E(X,1,30),DA)  
CROSS-REFERENCE: 19707.5^C  
1)= S ^VEN(7.5,"C",\$E(X,1,30),DA(1),DA)=""  
2)= K ^VEN(7.5,"C",\$E(X,1,30),DA(1),DA)

19707.5,11.1 PRINT SERVER 1 IP ADDRESS 11;1 FREE TEXT  
INPUT TRANSFORM: K:\$L(X)>20!(\$L(X)<1) X  
LAST EDITED: JUN 19, 2000  
HELP-PROMPT: Answer must be 1-20 characters in length.  
DESCRIPTION: IP address of primary print server in x.x.x.x format

19707.5,11.2 PRINT SERVER 2 IP ADDRESS 11;2 FREE TEXT  
INPUT TRANSFORM: K:\$L(X)>20!(\$L(X)<1) X  
LAST EDITED: JUN 19, 2000  
HELP-PROMPT: Answer must be 1-20 characters in length.  
Must be a legal IP address. May be the same as the IP address for server #1.  
DESCRIPTION: IP address of the secondary print server.

19707.5,11.3 TCP SOCKET 11;3 NUMBER  
INPUT TRANSFORM: K:+X'=X!(X>65534)!(X<1)!(X?.E1"."1N.N) X  
LAST EDITED: JUN 19, 2000  
HELP-PROMPT: Must be a legal IP address in the format X.X.X.X  
DESCRIPTION: TCP socket number of the print servers

19707.5,12 PATH TO PREFERENCE FILES 12;E1,245 FREE TEXT  
INPUT TRANSFORM: K:\$L(X)>240!(\$L(X)<1) X  
LAST EDITED: SEP 03, 2000  
HELP-PROMPT: Answer must be 1-240 characters in length.  
Must be a legal path name with a terminal slash  
DESCRIPTION: Path to folder where the raw user preference data is stored.

**FILES POINTED TO****FIELDS**

INSTITUTION (#4)	SITE:SITE (#.01)
NEW PERSON (#200)	GENERIC PROVIDER (#.13)
VA PATIENT (#2)	DEMO PATIENT (#.14)
VEN EHP CLINIC (#19707.95)	UNIQUE CLINIC (#.06)
INPUT TEMPLATE(S):	
PRINT TEMPLATE(S):	
SORT TEMPLATE(S):	

## 11.8 VEN EHP Error Log File

STANDARD DATA DICTIONARY #19707.7 -- VEN EHP ERROR LOG FILE 03/11/01  
STORED IN ^VEN(7.7, (VERSION 1.22)

This file contains a list of errors that occurred somewhere in the PCC+ form generation process. This file should not be edited directly. It is automatically updated by the PCC+ routines.

CROSS REFERENCED BY: TIMESTAMP(B)

19707.7,.01	TIMESTAMP	0;1 DATE (Required)
	INPUT TRANSFORM:	S %DT="ESTXR" D ^%DT S X=Y K:Y<1 X
	LAST EDITED:	JAN 11, 1990
	CROSS-REFERENCE:	19707.7^B
		1)= S ^VEN(7.7,"B",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.7,"B",\$E(X,1,30),DA)
19707.7,.02	VISIT	0;2 POINTER TO VISIT FILE (#9000010)
	LAST EDITED:	JAN 11, 1990
19707.7,.03	USER	0;3 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	JAN 11, 1990
19707.7,.04	SITE	0;4 POINTER TO INSTITUTION FILE (#4)
	LAST EDITED:	JAN 11, 1990
19707.7,.05	DEVICE	0;5 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>60!(\$L(X)<1) X
	LAST EDITED:	MAR 07, 2001
	HELP-PROMPT:	Answer must be 1-60 characters in length.
19707.7,.06	ACK	0;6 SET
		'1' FOR YES;
		'0' FOR NO;
	LAST EDITED:	AUG 14, 2000
19707.7,1	ERROR	1;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	JAN 11, 1990
	HELP-PROMPT:	Answer must be 1-240 characters in length.

### FILES POINTED TO

### FIELDS

INSTITUTION (#4)	SITE (#.04)
NEW PERSON (#200)	USER (#.03)
VISIT (#9000010)	VISIT (#.02)
INPUT TEMPLATE(S):	
PRINT TEMPLATE(S):	
VEN ILC ERROR LOG	JAN 12, 1990@11:54 USER #0 Error Log
SORT TEMPLATE(S):	

## 11.9 VEN EHP Audit Trail File

STANDARD DATA DICTIONARY #19707.8 -- VEN EHP AUDIT TRAIL FILE 03/11/01  
STORED IN ^VEN(7.8, (VERSION 1.22)

This file stores the records of all health summary requests generated by the PCC+ check-in process. It allows site managers to track authorized and unauthorized requests for patient information. This file should not be edited

directly. It is automatically updated by the PCC+ check-in process.

CROSS REFERENCED BY: PATIENT(AC), VISIT(AD), TIMESTAMP(B)

19707.8,.01	TIMESTAMP	0;1 DATE (Required)
	INPUT TRANSFORM:	S %DT="ESTXR" D ^%DT S X=Y K:Y<1 X
	LAST EDITED:	JAN 11, 1990
	CROSS-REFERENCE:	19707.8^B
		1)= S ^VEN(7.8,"B",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.8,"B",\$E(X,1,30),DA)
19707.8,.02	PATIENT	0;2 POINTER TO PATIENT FILE (#9000001)
	LAST EDITED:	JAN 13, 2000
	CROSS-REFERENCE:	19707.8^AC
		1)= S ^VEN(7.8,"AC",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.8,"AC",\$E(X,1,30),DA)
19707.8,.03	LOCATION	0;3 POINTER TO SUPER BILL DEPARTMENT FILE (#9002301.5)
	LAST EDITED:	JAN 27, 2000
19707.8,.04	REQUESTED BY	0;4 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	JAN 11, 1990
19707.8,.05	VISIT	0;5 POINTER TO VISIT FILE (#9000010)
	LAST EDITED:	SEP 18, 2000
	CROSS-REFERENCE:	19707.8^AD
		1)= S ^VEN(7.8,"AD",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.8,"AD",\$E(X,1,30),DA)

### FILES POINTED TO

### FIELDS

NEW PERSON (#200)	REQUESTED BY (#.04)
PATIENT (#9000001)	PATIENT (#.02)
SUPER BILL DEPARTMENT (#9002301.5)	LOCATION (#.03)
VISIT (#9000010)	VISIT (#.05)
INPUT TEMPLATE(S):	
PRINT TEMPLATE(S):	
CAPTIONED	USER #0
VEN AUDIT TRAIL	OCT 06, 2000@14:04 USER #38
VEN ILC HS AUDIT	JAN 12, 1990@08:38 USER #0
SORT TEMPLATE(S):	

## 11.10 VEN EHP Orderables File

STANDARD DATA DICTIONARY #19707.93 -- VEN EHP ORDERABLES FILE 03/11/01  
STORED IN ^VEN(7.93, (VERSION 1.22)

This file contains a set of site preferences for 4 demographic groups. It should never be edited directly but rather via the user preference editor ^VENPCCMP.

IDENTIFIED BY: HEADER FIELD (#.03)

CROSS REFERENCED BY: GROUP(AC), ELEMENT(B), COMPUTED HEADER FIELD(C)

```
19707.93,.01  ELEMENT          0;1 FREE TEXT (Required)
              INPUT TRANSFORM: K:$L(X)>30!($L(X)<2)!'(X'?1P.E) X
              LAST EDITED:    JUN 02, 2000
              HELP-PROMPT:    Answer must be 2-30 characters in length.
              CROSS-REFERENCE: 19707.93^B
                               1)= S ^VEN(7.93,"B",$E(X,1,30),DA)=""
                               2)= K ^VEN(7.93,"B",$E(X,1,30),DA)

19707.93,.03  HEADER FIELD    0;3 POINTER TO VENEHP HEADER FIELD FILE
                               (#19707.42)
              LAST EDITED:    JUL 21, 2000
              HELP-PROMPT:    Answer must be 2-4 characters in length.
              CROSS-REFERENCE: ^^TRIGGER^19707.93^.08
                               1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S
Y(1)=$S($D
                               (^VEN(7.93,D0,0)):^(0),1:"") S
X=$P(Y(1),U,8),
                               X=X S DIU=X K Y S X=DIV S
X=$P($G(^VEN(7.42,X,
                               0)),U) X ^DD(19707.93,.03,1,1,1.4)
                               1.4)= S
DIH=$S($D(^VEN(7.93,DIV(0),0)):^(0),1:
                               ""),DIV=X S
$P(^ (0),U,8)=DIV,DIH=19707.93,DIG=
                               .08 D ^DICR:$O(^DD(DIH,DIG,1,0))>0
                               2)= Q
                               CREATE VALUE)= S X=$P($G(^VEN(7.42,X,0)),U)
                               DELETE VALUE)= NO EFFECT
                               FIELD)= COMPUTED HEADER FIELD

19707.93,.04  PRE            0;4 FREE TEXT
              INPUT TRANSFORM: K:$L(X)>9!($L(X)<1) X
              LAST EDITED:    JUN 02, 2000
              HELP-PROMPT:    Answer must be 1-9 characters in length.

19707.93,.05  REFERENCE FILE IEN 0;5 NUMBER
              INPUT TRANSFORM: K:+X'=X!(X>99999999)!(X<1)!(X?.E1"."1N.N) X
              LAST EDITED:    FEB 06, 2001
              HELP-PROMPT:    Type a Number between 1 and 99999999, 0
                               Decimal Digits

19707.93,.06  CODE 1         0;6 FREE TEXT
              INPUT TRANSFORM: K:$L(X)>9!($L(X)<1) X
```

	LAST EDITED:	JUL 17, 2000
	HELP-PROMPT:	Answer must be 1-9 characters in length.
19707.93,.07	CODE 2	0;7 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>9!(\$L(X)<1) X
	LAST EDITED:	JUL 17, 2000
	HELP-PROMPT:	Answer must be 1-9 characters in length.
19707.93,.08	COMPUTED HEADER FIELD	0;8 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<1) X
	LAST EDITED:	JUL 21, 2000
	HELP-PROMPT:	Answer must be 1-30 characters in length.
	WRITE AUTHORITY:	^
VEN	NOTES:	TRIGGERED by the HEADER FIELD field of the
		EHP ORDERABLES File
	CROSS-REFERENCE:	19707.93^C
		1)= S ^VEN(7.93,"C",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.93,"C",\$E(X,1,30),DA)
19707.93,.09	CLASS	0;9 SET
		'1' FOR INFANTS;
		'2' FOR CHILDREN;
		'3' FOR ADULT MALES;
		'4' FOR ADULT FEMALES;
	LAST EDITED:	DEC 13, 2000
	CROSS-REFERENCE:	^^TRIGGER^19707.93^.1
Y(1)=\$S(\$D		1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S
X=\$P(Y(1),U,10)		(^VEN(7.93,D0,0)):^(0),1:"") S
X=\$\$CLASS^VENPCCU(D		,X=X S DIU=X K Y S X=DIV S
		0,X) X ^DD(19707.93,.09,1,1,1.4)
		1.4)= S
DIH=\$S(\$D(^VEN(7.93,DIV(0),0)):^(0),1:		""),DIV=X S
\$P(^^(0),U,10)=DIV,DIH=19707.93,DIG		=.1 D ^DICR:\$O(^DD(DIH,DIG,1,0))>0
		2)= Q
		CREATE VALUE)= S X=\$\$CLASS^VENPCCU(D0,X)
		DELETE VALUE)= NO EFFECT
		FIELD)= GROUP
19707.93,.1	GROUP	0;10 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>2!(\$L(X)<2) X
	LAST EDITED:	NOV 11, 2000
	HELP-PROMPT:	Answer must be 2 characters in length.
	NOTES:	TRIGGERED by the CLASS field of the VEN EHP
		ORDERABLES File
	CROSS-REFERENCE:	19707.93^AC
		1)= S ^VEN(7.93,"AC",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.93,"AC",\$E(X,1,30),DA)
19707.93,.11	FORM	0;11 POINTER TO VEN EHP EF TEMPLATES FILE
		(#19707.41)

	LAST EDITED:	NOV 27, 2000
19707.93,1	COMPUTE TAG	1;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	JUN 02, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.
19707.93,2	SPECIAL SCREENING TAG	2;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	NOV 11, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.

FILES POINTED TO	FIELDS
VEN EHP EF TEMPLATES (#19707.41)	FORM (#.11)
VEN EHP HEADER FIELD (#19707.42)	HEADER FIELD (#.03)

INPUT TEMPLATE(S):

PRINT TEMPLATE(S):

CAPTIONED		USER #0	
CJ-X-LIST	OCT 05, 2000@08:58	USER #38	X
List			

SORT TEMPLATE(S):

CJ-PT ED CODES	MAR 06, 2001@09:48	USER #38
----------------	--------------------	----------

SORT BY: @CLASS// (CLASS not null)

WITHIN CLASS, SORT BY: HEADER FIELD// (HEADER FIELD from y)

## 11.11 VEN EHP Ticklers File

STANDARD DATA DICTIONARY #19707.94 -- VEN EHP TICKLERS FILE 03/11/01  
 STORED IN ^VEN(7.94, (VERSION 1.22)

This file contains this items that are printed in the review of systems box on the PCC+ encounter form.

IDENTIFIED BY: HEADER FIELD (#.03)

CROSS REFERENCED BY: ELEMENT(B), COMPUTED HEADER FIELD(C)

19707.94,.01	ELEMENT	0;1 FREE TEXT (Required)
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<2)!'(X'?1P.E) X
	LAST EDITED:	JUN 02, 2000
	HELP-PROMPT:	Answer must be 2-30 characters in length.
	CROSS-REFERENCE:	19707.94^B
		1)= S ^VEN(7.94,"B", \$E(X,1,30),DA)=""
		2)= K ^VEN(7.94,"B", \$E(X,1,30),DA)
19707.94,.03	HEADER FIELD	0;3 POINTER TO VEN EHP HEADER FIELD FILE

		(#19707.42)
	LAST EDITED:	JUL 21, 2000
	HELP-PROMPT:	Answer must be 2-4 characters in length.
	CROSS-REFERENCE:	^^TRIGGER^19707.94^.08
Y(1)=\$S(\$D		1)= K DIV S DIV=X,D0=DA,DIV(0)=D0 S
		(^VEN(7.94,D0,0)):^(0),1:"") S
X=\$P(Y(1),U,8),		
		X=X S DIU=X K Y S X=DIV S
X=\$P(\$G(^VEN(7.42,X,		
		0)),U) X ^DD(19707.94,.03,1,1,1.4)
		1.4)= S
DIH=\$S(\$D(^VEN(7.94,DIV(0),0)):^(0),1:		
		""),DIV=X S
\$P(^0),U,8)=DIV,DIH=19707.94,DIG=		
		.08 D ^DICR:\$O(^DD(DIH,DIG,1,0))>0
		2)= Q
		CREATE VALUE)= S X=\$P(\$G(^VEN(7.42,X,0)),U)
		DELETE VALUE)= NO EFFECT
		FIELD)= COMPUTED HEADER FIELD
19707.94,.04	PRE	0;4 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>9!(\$L(X)<1) X
	LAST EDITED:	DEC 13, 2000
	HELP-PROMPT:	Answer must be 1-9 characters in length.
19707.94,.05	POST	0;5 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>9!(\$L(X)<1) X
	LAST EDITED:	DEC 13, 2000
	HELP-PROMPT:	Answer must be 1-9 characters in length.
19707.94,.08	COMPUTED HEADER FIELD	0;8 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>30!(\$L(X)<1) X
	LAST EDITED:	JUL 21, 2000
	HELP-PROMPT:	Answer must be 1-30 characters in length.
	WRITE AUTHORITY:	^
	NOTES:	TRIGGERED by the HEADER FIELD field of the
VEN		
		EHP TICKLERS File
	CROSS-REFERENCE:	19707.94^C
		1)= S ^VEN(7.94,"C",\$E(X,1,30),DA)=""
		2)= K ^VEN(7.94,"C",\$E(X,1,30),DA)
19707.94,.09	CLASS	0;9 SET
		'1' FOR INFANTS;
		'2' FOR CHILDREN;
		'3' FOR ADULT MALES;
		'4' FOR ADULT FEMALES;
	LAST EDITED:	DEC 10, 2000
19707.94,1	COMPUTE TAG	1;E1,245 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>240!(\$L(X)<1) X
	LAST EDITED:	JUN 02, 2000
	HELP-PROMPT:	Answer must be 1-240 characters in length.

```

19707.94,2    SPECIAL SCREENING TAG  2;E1,245 FREE TEXT
              INPUT TRANSFORM:  K:$L(X)>240!($L(X)<1) X
              LAST EDITED:      NOV 11, 2000
              HELP-PROMPT:      Answer must be 1-240 characters in length.

```

**FILES POINTED TO****FIELDS**

```

VEN EHP HEADER FIELD (#19707.42)  HEADER FIELD (#.03)
INPUT TEMPLATE(S):
PRINT TEMPLATE(S):
CAPTIONED                                USER #0
SORT TEMPLATE(S):
FORM(S)/BLOCK(S):

```

## 11.12 VEN EHP Clinic File

```

STANDARD DATA DICTIONARY #19707.95 -- VEN EHP CLINIC FILE      03/11/01
STORED IN ^VEN(7.95, (VERSION1.12)

```

Each department (clinic stop) may have one or more 'clinics'. The clinic is the lowest common denominator location in the facility For example, 'LACTATION CLINIC' may be a clinic of 'GYNECOLOGY' department.

POINTED TO BY: QUEUE DESTINATION field (#.04) of the VEN QUEUE File (#19707.2)

```

                QUEUE ORIGIN field (#.12) of the VEN QUEUE File (#19707.2)
                UNIQUE CLINIC field (#.06) of the VEN EHP CONFIGURATION File
                  (#19707.5)

```

CROSS REFERENCED BY: PRINTER GROUP(ALOC), NAME(B)

```

19707.95,.01  NAME                0;1 FREE TEXT (Required)
              INPUT TRANSFORM:    K:$L(X)>30!($L(X)<3)!'(X'?1P.E) X
              LAST EDITED:        DEC 17, 2000
              HELP-PROMPT:        Answer must be 3-30 characters in length.
                                  Format: location - department; e.g., SELLS -
                                  DENTAL
              DESCRIPTION:        Department name in the format: location -
                                  department; e.g., SELLS - DENTAL
              CROSS-REFERENCE:    19707.95^B
                                  1)= S ^VEN(7.95,"B",$E(X,1,30),DA)=""
                                  2)= K ^VEN(7.95,"B",$E(X,1,30),DA)

```

```

19707.95,.04  DEPARTMENT          0;4 POINTER TO CLINIC STOP FILE (#40.7)
              LAST EDITED:        DEC 20, 2000
              HELP-PROMPT:        Enter the CLINIC STOP associated with this
                                  department.
              DESCRIPTION:        The clinic stop associated with this
                                  department

```

```

19707.95,2.01 PRINTER GROUP      2;1 POINTER TO VEN EHP PRINTER GROUP FILE
                                  (#19707.4)

```



	LAST EDITED:	AUG 13, 2000
	HELP-PROMPT:	Enter the name of the Print Service printer group associated with this department
	DESCRIPTION:	Print service printer group associated with this clinic.
	CROSS-REFERENCE:	19707.95^ALOC 1)= S ^VEN(7.95,"ALOC",\$E(X,1,30),DA)="" 2)= K ^VEN(7.95,"ALOC",\$E(X,1,30),DA)
19707.95,2.02	DEFAULT PROVIDER	2;2 POINTER TO NEW PERSON FILE (#200)
	LAST EDITED:	MAR 05, 2001
	HELP-PROMPT:	Enter the name of the default provider for this department.
	DESCRIPTION:	Name of the default provider for this department. Every department should have one provider assigned as the default provider.
If		the destination provider is unknown at check in, the preferences of the Default Provider will be used to generate the encounter form
19707.95,2.03	TRIAGE MODULE	2;3 SET '1' FOR YES; '0' FOR NO;
	LAST EDITED:	NOV 08, 2000
	HELP-PROMPT:	Answer 'NO' unless you are a site that is testing the TRIAGE NURSE MODULE
	DESCRIPTION:	Answer 'YES' if the TRIAGE MODULE is being used with this application.
19707.95,2.04	MEDICAL RECORD LOCATION	2;4 POINTER TO INSTITUTION FILE (#4)
	LAST EDITED:	JUN 12, 2000
	HELP-PROMPT:	Enter the name of the facility that houses the
	DESCRIPTION:	medical records for this department. The name of the facility that houses the medical records for this department.
19707.95,2.05	DEFAULT ENCOUNTER FORM	2;5 POINTER TO VEN EHP EF TEMPLATES FILE (#19707.41)
	LAST EDITED:	JUN 23, 2000
	HELP-PROMPT:	Enter the name of the default encounter form used in this department.
	DESCRIPTION:	The default encounter form used by this department.
19707.95,2.06	DEFAULT HEALTH SUMMARY	2;6 POINTER TO HEALTH SUMMARY TYPE FILE (
		#9001015)
	LAST EDITED:	JUN 23, 2000
	HELP-PROMPT:	Enter the name of the default Health Summary used in this department.
	DESCRIPTION:	The default Health Summary used in this department.

```

19707.95,2.07 ACTIVE DESTINATION  2;7 SET
                                '1' FOR INACTIVE DESTINATION;
                                '0' FOR ACTIVE DESTINATION;
                                LAST EDITED:    JAN 12, 2001
                                HELP-PROMPT:    Enter '1' if this department is not printing
                                                encounter forms at this time.
                                DESCRIPTION:     This parameter will have a value of '1', if
forms                                         the department is not printing encounter
                                                at this time.

```

**FILES POINTED TO****FIELDS**

CLINIC STOP (#40.7)	DEPARTMENT (#.04)
HEALTH SUMMARY TYPE (#9001015)	DEFAULT HEALTH SUMMARY (#2.06)
INSTITUTION (#4)	MEDICAL RECORD LOCATION (#2.04)
NEW PERSON (#200)	DEFAULT PROVIDER (#2.02)
VEN EHP EF TEMPLATES (#19707.41)	DEFAULT ENCOUNTER FORM (#2.05)
VEN EHP PRINTER GROUP (#19707.4)	PRINTER GROUP (#2.01)

INPUT TEMPLATE(S) :

PRINT TEMPLATE(S) :

SORT TEMPLATE(S) :

## 11.13 VEN EHP Orderable Class File

```

STANDARD DATA DICTIONARY #19707.98 -- VEN EHP ORDERABLE CLASS FILE    03/11/01
STORED IN ^VEN(7.98, (VERSION 1.22)

```

This file contains a list of valid orderable classes; e.g., lab tests, exams, etc. It should never be edited.

CROSS REFERENCED BY: PREFERENCE MNEMONIC(AC), LIST NAME(B)

```

19707.98,.01  LIST NAME          0;1 FREE TEXT (Required)
              INPUT TRANSFORM:   K:$L(X)>30!(X?.N)!($L(X)<3)!'(X'?1P.E) X
              LAST EDITED:      NOV 27, 2000
              HELP-PROMPT:      NAME MUST BE 3-30 CHARACTERS, NOT NUMERIC OR
                                STARTING WITH PUNCTUATION
              CROSS-REFERENCE:   19707.98^B
                                1)= S ^VEN(7.98,"B",$E(X,1,30),DA)=""
                                2)= K ^VEN(7.98,"B",$E(X,1,30),DA)

19707.98,.02  PREFERENCE MNEMONIC 0;2 FREE TEXT
              INPUT TRANSFORM:   K:$L(X)>3!($L(X)<1) X
              LAST EDITED:      AUG 30, 2000
              HELP-PROMPT:      Answer must be 1-3 characters in length.
              CROSS-REFERENCE:   19707.98^AC
                                1)= S ^VEN(7.98,"AC",$E(X,1,30),DA)=""
                                2)= K ^VEN(7.98,"AC",$E(X,1,30),DA)

```

19707.98,.03	FIELD MNEMONIC	0;3 FREE TEXT
	INPUT TRANSFORM:	K:\$L(X)>1!(\$L(X)<1) X
	LAST EDITED:	AUG 30, 2000
	HELP-PROMPT:	Answer must be 1 character in length.
19707.98,.04	REFERENCE FILE	0;4 POINTER TO FILE FILE (#1)
	LAST EDITED:	FEB 06, 2001

**FILES POINTED TO****FIELDS**

FILE (#1)

REFERENCE FILE (#.04)

INPUT TEMPLATE(S):

PRINT TEMPLATE(S):

SORT TEMPLATE(S):

FORM(S)/BLOCK(S):

## 11.14 VEN EHP Orderable Set File

STANDARD DATA DICTIONARY #19707.92 -- VEN EHP ORDERABLE SET FILE 09/13/01  
PAG

E 1

STORED IN ^VEN(7.92, \*\*\* NO DATA STORED YET \*\*\* SITE: CROW HOME UCI:  
PRD,BC

R (VERSION 1.2)

POINTED TO BY: ORDERABLE SET field (#.09) of the VEN EHP EF TEMPLATES File  
(#19707.41)

ORDERABLE SET field (#.02) of the VEN EHP ORDERABLES File  
(#19707.93)

CROSS REFERENCED BY: NAME(B)

DATA ELEMENT	NAME TITLE	GLOBAL LOCATION	DATA TYPE
-----------------	---------------	--------------------	--------------

--

19707.92,.01 NAME 0;1 FREE TEXT (Required)

INPUT TRANSFORM: K:\$L(X)>30! (X?.N) ! (\$L(X)<3) ! ' (X'?1P.E) X  
HELP-PROMPT: NAME MUST BE 3-30 CHARACTERS, NOT NUMERIC OR  
STARTING WITH PUNCTUATION

CROSS-REFERENCE: 19707.92^B  
1) = S ^VEN(7.92,"B", \$E(X,1,30),DA)=""  
2) = K ^VEN(7.92,"B", \$E(X,1,30),DA)

19707.92,.02 CREATED BY 0;2 FREE TEXT

INPUT TRANSFORM: K:\$L(X)>30! (\$L(X)<1) X  
LAST EDITED: JUN 26, 2001  
HELP-PROMPT: Answer must be 1-30 characters in length.

19707.92,.03 CREATED AT 0;3 FREE TEXT

INPUT TRANSFORM: K:\$L(X)>30! (\$L(X)<1) X  
LAST EDITED: JUN 26, 2001  
HELP-PROMPT: Answer must be 1-30 characters in length.

19707.92,.04 CREATION DATE 0;4 DATE

INPUT TRANSFORM: S %DT="EX" D ^%DT S X=Y K:Y<1 X  
LAST EDITED: JUN 26, 2001

19707.92,1 DESCRIPTION 1;0 WORD-PROCESSING #19707.921

INPUT TEMPLATE(S) :  
PRINT TEMPLATE(S) :  
SORT TEMPLATE(S) :  
FORM(S) /BLOCK(S) :

## 12.0 Appendix A: Header and Data Files

### 12.1 The Encounter Form Header File: efheader.txt

```
header^template^group^printer^patient^chart^dob^agesex^tribe^ssn^community^provider^ti
mestamp^elig^grav^para^l^ab^fpm^uid^lab1^reqd^lab2^hdr^p1^p1c^p2^p2c^p3^p3c^p4^p4c^p5
^p5c^p6^p6c^p7^p7c^p8^p8c^p9^p9c^p10^p10c^p11^p11c^p12^p12c^p13^p13c^p14^p14c^p15^p15c
^p16^p16c^p17^p17c^p18^p18c^p19^p19c^p20^p20c^p1x^p2x^p3x^p4x^p5x^p6x^p7x^p8x^p9x^p10x
^p11x^p12x^p13x^p14x^p15x^p16x^p17x^p18x^p19x^p20x^d1^d1c^d2^d2c^d3^d3c^d4^d4c^d5^d5c^
d6^d6c^d7^d7c^d8^d8c^d9^d9c^d10^d10c^d11^d11c^d12^d12c^d13^d13c^d14^d14c^d15^d15c^d16^
d16c^d17^d17c^d18^d18c^d19^d19c^d20^d20c^d21^d21c^d22^d22c^d23^d23c^d24^d24c^d25^d25c^
d26^d26c^d27^d27c^d28^d28c^d29^d29c^d30^d30c^d31^d31c^d32^d32c^d33^d33c^d34^d34c^d35^d
35c^d36^d36c^d37^d37c^d38^d38c^d39^d39c^d40^d40c^d41^d41c^d42^d42c^d43^d43c^d44^d44c^d
45^d45c^d46^d46c^d47^d47c^d48^d48c^d49^d49c^d50^d50c^d51^d51c^d52^d52c^d53^d53c^d54^d5
4c^d55^d55c^d56^d56c^d57^d57c^d58^d58c^d59^d59c^d60^d60c^d1x^d2x^d3x^d4x^d5x^d6x^d7x^d
8x^d9x^d10x^d11x^d12x^d13x^d14x^d15x^d16x^d17x^d18x^d19x^d20x^d21x^d22x^d23x^d24x^d25x
^d26x^d27x^d28x^d29x^d30x^d31x^d32x^d33x^d34x^d35x^d36x^d37x^d38x^d39x^d40x^d41x^d42x^
d43x^d44x^d45x^d46x^d47x^d48x^d49x^d50x^d51x^d52x^d53x^d54x^d55x^d56x^d57x^d58x^d59x^d
60x^md1^md2^md3^md4^md5^md6^md7^md8^md9^md10^md11^md12^md13^md14^md15^mm1^mm2^mm3^mm4^
mm5^mm6^mm7^mm8^mm9^mm10^mm11^mm12^mm13^mm14^mm15^ms1^ms2^ms3^ms4^ms5^ms6^ms7^ms8^ms9^
ms10^ms11^ms12^ms13^ms14^ms15^mq1^mq2^mq3^mq4^mq5^mq6^mq7^mq8^mq9^mq10^mq11^mq12^mq13^
mq14^mq15^mr1^mr2^mr3^mr4^mr5^mr6^mr7^mr8^mr9^mr10^mr11^mr12^mr13^mr14^mr15^f1^f2^f3^f
4^f5^v1^v2^v3^v4^v5^v6^v7^v8^v9^v10^v11^v12^v13^v14^v15^e1^e2^e3^e4^e5^e6^e7^e8^e9^e10
^e11^e12^e13^e14^e15^e16^e17^e18^e19^e20^e1a^e2a^e3a^e4a^e5a^e6a^e7a^e8a^e9a^e10a^e11a
^e12a^e13a^e14a^e15a^e16a^e17a^e18a^e19a^e20a^e1x^e2x^e3x^e4x^e5x^e6x^e7x^e8x^e9x^e10x
^e11x^e12x^e13x^e14x^e15x^e16x^e17x^e18x^e19x^e20x^i1^i2^i3^i4^i5^i6^i7^i8^i9^i10^i1a^
i2a^i3a^i4a^i5a^i6a^i7a^i8a^i9a^i10a^i1x^i2x^i3x^i4x^i5x^i6x^i7x^i8x^i9x^i10x^i11^i12^i13
^i14^i15^i16^i17^i18^i19^i10^i11^i12^i13^i14^i15^i16^i17^i18^i19^i20^i1a^i2a^i3a^i4a^i5a^i6a
^i7a^i8a^i9a^i10a^i11a^i12a^i13a^i14a^i15a^i16a^i17a^i18a^i19a^i20a^i11x^i12x^i13x^i14x^i15
x^i16x^i17x^i18x^i19x^i10x^i11x^i12x^i13x^i14x^i15x^i16x^i17x^i18x^i19x^i20x^b1^b2^b3^b4^b
5^b6^b7^b8^b9^b10^b11^b12^b13^b14^b15^b16^b17^b18^b19^b20^b21^b22^b23^b24^b25^b26^b27^
b28^b29^b30^b31^b32^b33^b34^b35^b36^b37^b38^b39^b40^b41^b42^b43^b44^b45^b46^b47^b48^b4
9^b50^x1^x2^x3^x4^x5^x6^x7^x8^x9^x10^x11^x12^x13^x14^x15^x16^x17^x18^x19^x20^x21^x22^x
23^x24^x25^x26^x27^x28^x29^x30^x31^x32^x33^x34^x35^x36^x37^x38^x39^x40^x41^x42^x43^x44
^x45^x46^x47^x48^x49^x50^a1^a2^a3^a4^a5^t1^t2^t3^t4^t5^t6^t7^t8^t9^t10^t11^t12^t13^t14
^t15^t16^t17^t18^t19^t20^t1a^t2a^t3a^t4a^t5a^t6a^t7a^t8a^t9a^t10a^t11a^t12a^t13a^t14a^
t15a^t16a^t17a^t18a^t19a^t20a^t1x^t2x^t3x^t4x^t5x^t6x^t7x^t8x^t9x^t10x^t11x^t12x^t13x^
t14x^t15x^t16x^t17x^t18x^t19x^t20x^s1^s2^s3^s4^s5^s6^s7^s8^s9^s10^s11^s12^s13^s14^s15^
s1a^s2a^s3a^s4a^s5a^s6a^s7a^s8a^s9a^s10a^s11a^s12a^s13a^s14a^s15a^s1x^s2x^s3x^s4x^s5x^
s6x^s7x^s8x^s9x^s10x^s11x^s12x^s13x^s14x^s15x^r1^r2^r3^r4^r5^r6^r7^r8^r9^r10^r11^r12^r
13^r14^r15^r16^r17^r18^r19^r20^r21^r22^r23^r24^r25^r1a^r2a^r3a^r4a^r5a^r6a^r7a^r8a^r9a
^r10a^r11a^r12a^r13a^r14a^r15a^r16a^r17a^r18a^r19a^r20a^r21a^r22a^r23a^r24a^r25a^r1x^r
2x^r3x^r4x^r5x^r6x^r7x^r8x^r9x^r10x^r11x^r12x^r13x^r14x^r15x^r16x^r17x^r18x^r19x^r20x^
r21x^r22x^r23x^r24x^r25x^z1^z2^z3^z4^z5^z6^z7^z8^z9^z10^z11^z12^z13^z14^z15^z16^z17^z1
8^z19^z20^z1a^z2a^z3a^z4a^z5a^z6a^z7a^z8a^z9a^z10a^z11a^z12a^z13a^z14a^z15a^z16a^z17a^
z18a^z19a^z20a^z1x^z2x^z3x^z4x^z5x^z6x^z7x^z8x^z9x^z10x^z11x^z12x^z13x^z14x^z15x^z16x^
z17x^z18x^z19x^z20x^y1^y2^y3^y4^y5^y6^y7^y8^y9^y10^y11^y12^y13^y14^y15^y16^y17^y18^y19
^y20^y1a^y2a^y3a^y4a^y5a^y6a^y7a^y8a^y9a^y10a^y11a^y12a^y13a^y14a^y15a^y16a^y17a^y18a^
y19a^y20a^y1x^y2x^y3x^y4x^y5x^y6x^y7x^y8x^y9x^y10x^y11x^y12x^y13x^y14x^y15x^y16x^y17x^
y18x^y19x^y20x^vbar1^vbar2^c11^c12^c13^c14^c15^c16^c17^c18^c19^c20^c21^c22^c23^c24^c25
^c26^c27^c28^c29^c30^c31^c32^c33^c34^c35^c36^c37^c38^c39^c40^c41^c42^c43^c44^c45^c46^c
47^c48^c49^c50^c51^c52^c53^c54^c55^c56^c57^c58^c59^c60^c61^c62^c63^c64^c65^c66^c67^c68
^c69^c70^c71^c72^c73^c74^c75^c76^c77^c78^c79^c80^c81^c82^c83^c84^c85^c86^c87^c88^c89^c
90^c91^c92^c93^c94^c95^c96^c97^c98^c99^c100^h1^h2^h3^h4^h5^h6^h7^h8^h9^h10^h11^h12^h13
^h14^h15^h16^h17^h18^h19^h20^h21^h22^h23^h24^h25^h26^h27^h28^h29^h30^h31^h32^h33^h34^h
35^h36^h37^h38^h39^h40^h41^h42^h43^h44^h45^h46^h47^h48^h49^h50
```

## 12.2 The Health Summary Header File: hsheader.txt

```
HEADER^TEMPLATE^GROUP^PRINTER^H1^H2^S1^S101^S102^S103^S104^S105^S106^S107^S108^S109^S110^S111^S112^S113^S114^S115^S116^S117^S118^S119^S120^S121^S122^S123^S124^S125^S126^S127^S128^S129^S130^S131^S132^S133^S134^S135^S136^S137^S138^S139^S140^S141^S142^S143^S144^S145^S146^S147^S148^S149^S150^S201^S202^S203^S204^S205^S206^S207^S208^S209^S210^S211^S212^S213^S214^S215^S216^S217^S218^S219^S220^S221^S222^S223^S224^S225^S226^S227^S228^S229^S230^S231^S232^S233^S234^S235^S236^S237^S238^S239^S240^S241^S242^S243^S244^S245^S246^S247^S248^S249^S250^S3^S301^S302^S303^S304^S305^S306^S307^S308^S309^S310^S311^S312^S313^S314^S315^S316^S317^S318^S319^S320^S321^S322^S323^S324^S325^S326^S327^S328^S329^S330^S331^S332^S333^S334^S335^S336^S337^S338^S339^S340^S341^S342^S343^S344^S345^S346^S347^S348^S349^S350^S4^S401^S402^S403^S404^S405^S406^S407^S408^S409^S410^S411^S412^S413^S414^S415^S416^S417^S418^S419^S420^S421^S422^S423^S424^S425^S426^S427^S428^S429^S430^S431^S432^S433^S434^S435^S436^S437^S438^S439^S440^S441^S442^S443^S444^S445^S446^S447^S448^S449^S450^S5^S501^S502^S503^S504^S505^S506^S507^S508^S509^S510^S511^S512^S513^S514^S515^S516^S517^S518^S519^S520^S521^S522^S523^S524^S525^S526^S527^S528^S529^S530^S531^S532^S533^S534^S535^S536^S537^S538^S539^S540^S541^S542^S543^S544^S545^S546^S547^S548^S549^S550^S6^S601^S602^S603^S604^S605^S606^S607^S608^S609^S610^S611^S612^S613^S614^S615^S616^S617^S618^S619^S620^S621^S622^S623^S624^S625^S626^S627^S628^S629^S630^S631^S632^S633^S634^S635^S636^S637^S638^S639^S640^S641^S642^S643^S644^S645^S646^S647^S648^S649^S650^S7^S701^S702^S703^S704^S705^S706^S707^S708^S709^S710^S711^S712^S713^S714^S715^S716^S717^S718^S719^S720^S721^S722^S723^S724^S725^S726^S727^S728^S729^S730^S731^S732^S733^S734^S735^S736^S737^S738^S739^S740^S741^S742^S743^S744^S745^S746^S747^S748^S749^S750^S8^S801^S802^S803^S804^S805^S806^S807^S808^S809^S810^S811^S812^S813^S814^S815^S816^S817^S818^S819^S820^S821^S822^S823^S824^S825^S826^S827^S828^S829^S830^S831^S832^S833^S834^S835^S836^S837^S838^S839^S840^S841^S842^S843^S844^S845^S846^S847^S848^S849^S850^S9^S901^S902^S903^S904^S905^S906^S907^S908^S909^S910^S911^S912^S913^S914^S915^S916^S917^S918^S919^S920^S921^S922^S923^S924^S925^S926^S927^S928^S929^S930^S931^S932^S933^S934^S935^S936^S937^S938^S939^S940^S941^S942^S943^S944^S945^S946^S947^S948^S949^S950^S10^S1001^S1002^S1003^S1004^S1005^S1006^S1007^S1008^S1009^S1010^S1011^S1012^S1013^S1014^S1015^S1016^S1017^S1018^S1019^S1020^S1021^S1022^S1023^S1024^S1025^S1026^S1027^S1028^S1029^S1030^S1031^S1032^S1033^S1034^S1035^S1036^S1037^S1038^S1039^S1040^S1041^S1042^S1043^S1044^S1045^S1046^S1047^S1048^S1049^S1050^S11^S1101^S1102^S1103^S1104^S1105^S1106^S1107^S1108^S1109^S1110^S1111^S1112^S1113^S1114^S1115^S1116^S1117^S1118^S1119^S1120^S1121^S1122^S1123^S1124^S1125^S1126^S1127^S1128^S1129^S1130^S1131^S1132^S1133^S1134^S1135^S1136^S1137^S1138^S1139^S1140^S1141^S1142^S1143^S1144^S1145^S1146^S1147^S1148^S1149^S1150^S12^S1201^S1202^S1203^S1204^S1205^S1206^S1207^S1208^S1209^S1210^S1211^S1212^S1213^S1214^S1215^S1216^S1217^S1218^S1219^S1220^S1221^S1222^S1223^S1224^S1225^S1226^S1227^S1228^S1229^S1230^S1231^S1232^S1233^S1234^S1235^S1236^S1237^S1238^S1239^S1240^S1241^S1242^S1243^S1244^S1245^S1246^S1247^S1248^S1249^S1250^S13^S1301^S1302^S1303^S1304^S1305^S1306^S1307^S1308^S1309^S1310^S1311^S1312^S1313^S1314^S1315^S1316^S1317^S1318^S1319^S1320^S1321^S1322^S1323^S1324^S1325^S1326^S1327^S1328^S1329^S1330^S1331^S1332^S1333^S1334^S1335^S1336^S1337^S1338^S1339^S1340^S1341^S1342^S1343^S1344^S1345^S1346^S1347^S1348^S1349^S1350^S14^S1401^S1402^S1403^S1404^S1405^S1406^S1407^S1408^S1409^S1410^S1411^S1412^S1413^S1414^S1415^S1416^S1417^S1418^S1419^S1420^S1421^S1422^S1423^S1424^S1425^S1426^S1427^S1428^S1429^S1430^S1431^S1432^S1433^S1434^S1435^S1436^S1437^S1438^S1439^S1440^S1441^S1442^S1443^S1444^S1445^S1446^S1447^S1448^S1449^S1450^S15^S1501^S1502^S1503^S1504^S1505^S1506^S1507^S1508^S1509^S1510^S1511^S1512^S1513^S1514^S1515^S1516^S1517^S1518^S1519^S1520^S1521^S1522^S1523^S1524^S1525^S1526^S1527^S1528^S1529^S1530^S1531^S1532^S1533^S1534^S1535^S1536^S1537^S1538^S1539^S1540^S1541^S1542^S1543^S1544^S1545^S1546^S1547^S1548^S1549^S1550^S16^S1601^S1602^S1603^S1604^S1605^S1606^S1607^S1608^S1609^S1610^S1611^S1612^S1613^S1614^S1615^S1616^S1617^S1618^S1619^S1620^S1621^S1622^S1623^S1624^S1625^S1626^S1627^S1628^S1629^S1630^S1631^S1632^S1633^S1634^S1635^S1636^S1637^S1638^S1639^S1640^S1641^S1642^S1643^S1644^S1645^S1646^S1647^S1648^S1649^S1650^S17^S1701^S1702^S1703^S1704^S1705^S1706^S1707^S1708^S1709^S1710^S1711^S1712^S1713^S1714^S1715^S1716^S1717^S1718^S1719^S1720^S1721^S1722^S1723^S1724^S1725^S1726^S1727^S1728^S1729^S1730^S1731^S1732^S1733^S1734^S1735^S1736^S1737^S1738^S1739^S1740^S1741^S1742^S1743^S1744^S1745^S1746^S1747^S1748^S1749^S1750^S18^S1801^S1802^S1803^S1804^S1805^S1806^S1807^S1808^S1809^S1810^S1811^S1812^S1813^S1814^S1815^S1816^S1817^S1818^S1819^S1820^S1821^S1822^S1823^S1824^S1825^S1826^S1827^S1828^S1829^S1830^S1831^S1832^S1833^S1834^S1835^S1836^S1837^S1838^S1839^S1840^S1841^S1842^S1843^S1844^S1845^S1846^S1847^S1848^S1849^S1850^S19^S1901^S1902^S1903^S1904^S1905^S1906^S1907^S1908^S1909^S1910^S1911^S1912^S1913^S1914^S1915^S1916^S1917^S1918^S1919^S1920^S1921^S1922^S1923^S1924^S1925^S1926^S1927^S1928^S1929^S1930^S1931^S1932^S1933^S1934^S1935^S1936^S1937^S1938^S1939^S1940^S1941^S1942^S1943^S1944^S1945^S1946^S1947^S1948^S1949^S1950^S20^S2001^S2002^S2003^S2004^S2005^S2006^S2007^S2008^S2009^S2010^S2011^S2012^S2013^S2014^S2015^S2016^S2017^S2018^S2019^S2020^S2021^S2022^S2023^S2024^S2025^S2026^S2027^S2028^S2029^S2030^S2031^S2032^S2033^S2034^S2035^S2036^S2037^S2038^S2039^S2040^S2041^S2042^S2043^S2044^S2045^S2046^S2047^S2048^S2049^S2050^S21^S2101^S2102^S2103^S2104^S2105^S2106^S2107^S2108^S2109^S2110^S2111^S2112^S2113^S2114^S2115^S2116^S2117^S2118^S2119^S2120^S2121^S2122^S2123^S2124^S2125^S2126^S2127^S2128^S2129^S2130^S2131^S2132^S2133^S2134^S2135^S2136^S2137^S2138^S2139^S2140^S2141^S2142^S2143^S2144^S2145^S2146^S2147^S2148^S2149^S2150^S22^S2201^S2202^S2203^S2204^S2205^S2206^S2207^S2208^S2209^S2210^S2211^S2212^S2213^S2214^S2215^S2216^S2217^S2218^S2219^S2220^S2221^S2222^S2223^S2224^S2225^S2226^S2227^S2228^S2229^S2230^S2231^S2232^S2233^S2234^S2235^S2236^S2237^S2238^S2239^S2240^S2241^S2242^S2243^S2244^S2245^S2246^S2247^S2248^S2249^S2250^S23^S2301^S2302^S2303^S2304^S2305^S2306^S2307^S2308^S2309^S2310^S2311^S2312^S2313^S2314^S2315^S2316^S2317^S2318^S2319^S2320^S2321^S2322^S2323^S2324^S2325^S2326^S2327^S2328^S2329^S2330^S2331^S2332^S2333^S2334^S2335^S2336^S2337^S2338^S2339^S2340^S2341^S2342^S2343^S2344^S2345^S2346^S2347^S2348^S2349^S2350^S24^S2401^S2402^S2403^S2404
```

^S2405^S2406^S2407^S2408^S2409^S2410^S2411^S2412^S2413^S2414^S2415^S2416^S2417^S2418^S2419^S2420^S2421^S2422^S2423^S2424^S2425^S2426^S2427^S2428^S2429^S2430^S2431^S2432^S2433^S2434^S2435^S2436^S2437^S2438^S2439^S2440^S2441^S2442^S2443^S2444^S2445^S2446^S2447^S2448^S2449^S2450^S25^S2501^S2502^S2503^S2504^S2505^S2506^S2507^S2508^S2509^S2510^S2511^S2512^S2513^S2514^S2515^S2516^S2517^S2518^S2519^S2520^S2521^S2522^S2523^S2524^S2525^S2526^S2527^S2528^S2529^S2530^S2531^S2532^S2533^S2534^S2535^S2536^S2537^S2538^S2539^S2540^S2541^S2542^S2543^S2544^S2545^S2546^S2547^S2548^S2549^S2550^FOOTER

### 12.3 Sample Encounter Form Data File: e12345.txt

```
ef^wic^CROW WALKIN^70912;5;4585;2^MANDY WHEELWRIGHT^100006^FEB 8,1919^82 y/o
female^TOHONO O'ODHAM NATION OF ARIZONA^000 28 0002^SELLS^Provider: GREG SHORR^MAR
2,2001@11:32^ELIGIBILITY UNKNOWN^*****100006.113A^^SHORR,GREG^^BBS - PEDIATRICS (20)^-
-----POVs-----^-----^DM^250.00^HTN^401.9^VITAL SIGNS
ONLY^780.9^CARDIOMEGALY^429.3^UNSTABLE ANGINA^413.9^ATHEROSCLEROTIC CARDIO^429.2^R
DISTAL FIBULA FRACTU^824.8^F/U R DISTAL FIB^V67.9^F/U R DISTAL FIB FX^823.81^UNNA BOOT
REPLACEMENT^V53.7^PELVIC EXAM^V72.3^CARDIAC DISEASE^429.9^LAB DONE^V72.6^F/U ASHD,
HTN^414.0^MED REFILL^V68.1^BRONCHITIS^490.^ALLERGIC REACTION^995.3^URTICARIA
IMPROVED^708.9^PROBABLE HCTZ ALLERGY^995.2^*****DM Type
2^250.00^Hypertension^401.9^UTT^599.0^Allergic rhinitis^477.9^Vertigo^780.4^Leg
cramps^729.82^Hyperlipidemia^272.4^Anticoagulation^286.9^Pneumonia^486.^Chronic
pain^780.9^HRT^V07.4^Rheumatoid
arthritis^714.0^Fibromyalgia^729.1^Hypothyroidism^244.9^Depression^311.^Osteoarthritis
(Site: _____^715.9 ^Diabetes mellitus, type II^250.00^Chronic obstructive lung
di^496.^Tuberculosis, ppd reactor, ^795.5^Coccidioidomycosis of the l^114.0^Urinary
tract infection^599.0^Onychomycosis^110.1^Bronchitis
acute^466.0^Tylomata^700.^Anemia^285.9^Viral upper respiratory
inf^465.9^Esophagitis^530.1^Laceration^879.8^Immunization^V06.8^Immunization^V07.9^Med
refill^V68.1^Tinea pedis^110.4^Hypokalemia due to diuretic^276.8^Background diabetic
retinop^362.01^Aphakia, left eye^379.31^Ulcer right heel^707.1^Musculoskeletal
pain^729.1^Seizure disorder^780.3^Background diabetic retinop^250.50^R bell's
palsy^351.0^Constipation^564.0^Infected ingrown toenail^703.0^Cocci
dermatitis^114.9^Hypoglycemia, resolved.cause^251.2^Hyponatremia,
resolving^276.1^Anemia, macrocytic, normocyti^281.9^Hemiplegia, due to old
cva^342.9^Neurogenic bladder^344.61^Cataract left eye^366.9^Left eye
pain^379.91^Otitis media resolved^382.9^COPD^491.9^Viral respiratory
illness^519.8^Gastritis^535.5^Diarrhea^558.9^Cystitis^595.9^False
labor^644.13^Dermatitis^692.9^Lichen simplex chronicus^698.3^Osteoarthritis, left
knee^715.96^*****
*****Breas
t Exam^EKG^Hearing^PAP Smear^PPD^Pelvic Exam^Physical exam^Rectal Exam^Stool Occult
Bld^Vision^*****G0101^93005^V5008^Q0091^86580^57410^^50605^G0107^99173^*****
*****Flu^Hep A Adult^Hep B Adult^PPD^Pneumovax^Td
Adult^*****90724^98632^90746^86580^90732^90718^*****Art Blood
Gas^BUN/Creat^CBC^Chlamydia^ETOH^GC^Glucose (strip)^HCT^LFTs^Lytes^^Pro Time -
INR^RPR^SMAC 20^Serum Glucose^Stool Culture^TSH^Throat Culture^UA^Urine
Culture^82805^80065^85034^86632^82055^87592^82948^85014^80061^80051^^85610^86592^80053
^82947^87045^84443^87060^81000^87086^*****No
record of 3rd party
eligibility...^*****_61Vulva^_62Vagina^_63Urethra^_64Cervix^_65
Adnexa^_66Uterus^_67Bladder^_68RectoVag^^Breast^_58Contour^_59d/c^_60Masses^FEMA
LE^*****Eye^^EKG^Pk Flow^O2 Sat^Glucose^*****Designated Provider:
Unknown^_ETOH^_Tobacco^_ET Smoke^_Drugs^*****Cast _____^Cerumen
removal^Cyst Rmv _____^Draw blood^FB Rmv _____^I&D _____^IUD In/Out^Nail Rmv _____^Splint
_____^Start IV^Suture Loc _____^Trig Pt Inj^Venipuncture^Wart
Rmv^*****29 _____^69210^^36415^10120^10060^583 _^117 _^29 _____^36489^^20550^36000^17110^
*****Allergy shot # _____^Cephazolin^Depo Provera^IV
Infusion^Ketorolac^Meperadine^Methotrexate^Promethazine^Rocephin^Terbutaline^*****951_
^90782^90782^90788^90782^90782^J9250^90782^J0696^J3105^*****Abdomen^An
kle _____C-Spine^CXR^Clavicle _____^Elbow _____^Foot _____^Hand _____^Hip _____^Jaw^Knee _____^LS-
Spine^Mammogram^Ribs^Shoulder _____^Skull^T-Spine^Wrist
```

```
____^74000^73600^72040^71010^73000^73070^73620^73120^73500^70100^73560^72100^76092
^71100^73030^70250^72070^^^73100^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^AC Splint^Ace Wrap^Alc.
Swabs^Cane^Cast Boot^Crutches^Gauze^Knee Brace^Nebulizer supp^O2^Surg Supp^Surg
Tray^Tape^Wrist
Brace^^^^^^L3670^A4460^A4245^E0100^L3260^E0112^A62____^L1830^E0601^E0431^A4649^A4550^A
4454^L3800^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^CA Prevention^DM Diet^DM Foot
care^Diet^Drugs/ETOH^Exercise^Seat
Belts^Tobacco^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^*70912.A1*^^70912.A2
*^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
^^^^^^__Last GLUCOSE: 11/30/89 (274 - H)^__Last PPD: Unknown^__Last MAMMO:
Unknown^__Last PELVIC: 11/10/86 - N1^__Last BREAST EXAM: 11/10/86 - N1^__Last RECTAL
EXAM: 12/01/89 - N1^^__Last PNEUMOVAX: 10/15/86^__Last FLU: 10/14/88^__Last TD:
Unknown^^^^__Last HEP-B: Unknown^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
```



## 13.0 APPENDIX B: Technical Underpinnings Of Extended Print Service Functionality

Version 1.2 of PCC+ is designed to run on a new version for the PCC+ print service: version 1.4. Do not be concerned with the disconnect in the version numbers. We are dealing with two entirely different pieces of software that operate somewhat independently. The underlying PCC+ platform runs in a M environment on the RPMS server. The print service is a Visual Basic application running on a Windows-based server. Since the release of PCC+ version 1.1, three new versions of the print service have been developed. The situation with the version numbers is analogous to running Microsoft Office 2000 on a Windows 98 machine.

The print service is controlled by sending commands from the print daemon through a TCP/IP interface. The original version of the print service was only able to respond to two commands: START and STOP. These commands controlled the mail merge process for each encounter form. The latest version of the print service responds to three additional commands.

COMMAND	FUNCTION	ACTION
PRINT_GRP_SYNC	PSYNC	Returns the names and descriptions of all print groups in a '^' delimited string: "printgroup1 name printgroup1 description^ printgroup2 name printgroup2 description^... printgroup n name printgroup n description"; e.g., "medrec medical records^..."
TEMPLATE_SYNC	TSYNC	Returns the names and descriptions of all print groups in a '^' delimited string: "template1^template2^...template n"; e.g., "wic_template.com^dental_template.com..."
GET_FILE^pathfilename	FSYNC	Returns the contents of an ASCII text file as a string; e.g., "GET_FILE^c:\program files\ilc\ilc forms print service\ef_header.txt returns the string: ef^wic^CROW_WALKIN^70912;5;4585;2^MANDY WHEELWRIGHT^100006^FEB 8,1919^82 y/o female^ ...

To send one of these special commands to the print service, set the global ^TMP("VEN SYNC",\$J) to one of the three commands in the table shown above. The PCC+ print daemon continuously monitors the value of this global (see CYCLE+1^VENPCCP). If a command is detected, it is sent to the print service by the subroutine SYNC^VENPCCP—but only after all pending encounter form print jobs have been cleared by the print daemon.

After receiving a valid command, the print service sends back the requested string in 500 byte chunks. The M subroutine GET^VENPCCM1 carries on a dialogue with

the print server. It receives the chunks and stores them in the global array ^TMP("VEN functionname",\$J,print server number,chunk number) where "functionname" is the name of the function shown in the table above. For example, ^TMP("VEN TSYNC,3,1,2) holds the second 500 bytes of the string of print templates located on print server #1, and the M Job number is 3. Once the requested string is stored in the global array, it can be manipulated and analyzed in a variety of ways.

The following entry points can be used to access the new print service functions:

ENTRY POINT	ACTION	PARAMETERS
PG^VENPCCM1	Return information about Print Group synchrony on the RPMS Server and the Print Servers	None
TEMPLATE^VENPCCM1	Return information about Template synchrony on the RPMS Server and the Print Servers	None
HEADER^VENPCCM1	Return information about Header File synchrony on the RPMS Server and the Print Servers	None
PGRP^VENPCCM2(IP)	Return the Print Group string from the specified Print Server	IP=Print Server IP address
TEMPLATE^VENPCCM2(IP)	Return the template string from the specified Print Server	IP=Print Server IP address
FILE^VENPCCM2(PATHFILENAME,IP)	Return a text file string from the specified Print Server	PATHFILENAME=Full path and file name of txt file to be returned IP=Print Server IP address
PG^VENPCCM3(NAME)	Validate and synchronize an individual print group	NAME=Print Group name

## 14.0 APPENDIX C: A DETAILED LIST OF MAIL MERGE FIELDS

Header field	Description	Category
<<l1>> thru <<l20>>	Lab	Infants, children, adult females, adult males
<<l1a>> thru <<l20a>>	Lab code	Infants, children, adult females, adult males
<<r1>> thru <<r25>>	Radiology	Infants, children, adult females, adult males
<<r1a>> thru <<r25a>>	Radiology code	Infants, children, adult females, adult males
<<e1>> thru <<e20>>	Exams	Infants, children, adult females, adult males
<<e1a>> thru <<e20a>>	Exam code	Infants, children, adult females, adult males
<<i1>> thru <<i10>>	Immunizations	Infants, children, adult females, adult males
<<i1a>> thru <<i10a>>	Immunization code	Infants, children, adult females, adult males
<<y1>> thru <<y20>>	Pt Education	Infants, children, adult females, adult males
<<y1a>> thru <<y20a>>	Pt Education code	Infants, children, adult females, adult males
<<t1>> thru <<t20>>	Treatments	Infants, children, adult females, adult males
<<t1a>> thru <<t20a>>	Treatments	Infants, children, adult females, adult males
<<s1>> thru <<s20>>	Injectons	Infants, children, adult females, adult males
<<s1a>> thru <<s20a>>	Injection code	Infants, children, adult females, adult males
<<d1>> thru <<d60>>	Diagnosis	All parients
<<d1c>> thru <<d60c>>	Diagnosis code	All parients
<<p1>> thru <<p20>>	Active Problems, recent pov	All patients
<<p1c>> thru <<p20c>>	Active Problem, pov code	All patients
<<a1>> thru <<a5>>	Allergies	All patients
<<h1>>	Pap	Adult females
<<h2>>	Glucose	All parients
<<h3>>	PPD	All parients
<<h4>>	Mammogram	Adult females
<<h5>>	Pelvic	Adult females
<<h6>>	Breast	Adult females
<<h7>>	Pelvic	Adult females
<<h8>>	Rectal	Adult males, adult females
<<h9>> thru <<h26>>	Immunization reminders. Specific immunization are not assigned to specific header fields – but they will always be in the range h9 to h26	All patients
<<md1>> thru <<md15>>	Medication	All patients
<<z1>> thru <<z15>>	Supplies	Infants, children, adult females, adult males
<<z1a>> thru <<z15a>>	Supplies code	Infants, children, adult females, adult males
<<patient>>	Patient Name	All patients
<<timestamp>>	Date and time form is printed	All patients
<<chart>>	HRN	All patients
<<agesex>>	Age and Sex	All patients
<<dob>>	Date of Birth	All patients
<<b27>>	Third Party Billing	All patients
<<vcn>>	Visit control number	All patients
<<tribe>>	Tribe	All patients
<<community>>	Community	All patients
<<ssn>>	Ssn	All patients
<<elig>>	Eligibility (chs/direct)	All patients
<<lbar>>	Bar Code	All patients
<<x29>>	Designated provider	All patients
<<x1>>	Vulva	ADULT FEMALES
<<x1>>	Penis	ADULT MALES
<<x1>>	Tanner	CHILDREN
<<x10>>	Breast	ADULT FEMALES
<<x11>>	Contour	ADULT FEMALES
<<x12>>	d/c	ADULT FEMALES
<<x13>>	Masses	ADULT FEMALES
<<x14>>	MALE	ADULT MALES
<<x14>>	FEMALE	ADULT FEMALES
<<x19>>	Eye	ADULT FEMALES
<<x2>>	Vagina	ADULT FEMALES
<<x2>>	Scrotum	ADULT MALES
<<x21>>	EKG	ADULT FEMALES
<<x22>>	Pk Flow	ADULT FEMALES
<<x22>>	HC	INFANTS
<<x22>>	Pk Flow	ADULT MALES
<<x23>>	O2 Sat	ADULT FEMALES
<<x23>>	O2 Sat	ADULT MALES
<<x24>>	Glucose	ADULT MALES
<<x24>>	Glucose	ADULT FEMALES
<<x24>>	Glucose	CHILDREN

Header field	Description	Category
<<x29>>	DP	ADULT MALES
<<x29>>	DP	ADULT FEMALES
<<x29>>	DP	CHILDREN
<<x29>>	DP	INFANTS
<<x3>>	Urethra	ADULT FEMALES
<<x3>>	Testes	ADULT MALES
<<x30>>	ETOH	ADULT FEMALES
<<x30>>	ETOH	ADULT MALES
<<x30>>	ETOH	CHILDREN
<<x31>>	Tobacco	ADULT FEMALES
<<x32>>	ET Smoke	INFANTS
<<x32>>	ET Smoke	ADULT FEMALES
<<x32>>	ET Smoke	ADULT MALES
<<x32>>	ET Smoke	CHILDREN
<<x33>>	Drugs	ADULT FEMALES
<<x33>>	Drugs	ADULT MALES
<<x33>>	Drugs	CHILDREN
<<x4>>	Cervix	ADULT FEMALES
<<x4>>	Prostate	ADULT MALES
<<x40>>	LMP	ADULT FEMALES
<<x41>>	FP	ADULT FEMALES
<<x5>>	Adnexa	ADULT FEMALES
<<x5>>	Circf/skin	ADULT MALES
<<x6>>	Uterus	ADULT FEMALES
<<x7>>	Bladder	ADULT FEMALES
<<x8>>	RectoVag	ADULT FEMALES
<<Lab1>>	LMP (label)	ADULT FEMALES
<<Lab2>>	FP Method (label)	ADULT FEMALES
<<fpm>>	Family Planning Method	ADULT FEMALES
<<lc>>	Living Children	ADULT FEMALES
<<grav>>	Gravida	ADULT FEMALES
<<para>>	Para	ADULT FEMALES
<<ab>>	Abortions	ADULT FEMALES

## 15.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the ITSC Help Desk by:

**Phone:** (505) 248-4371 or  
(888) 830-7280

**Fax:** (505) 248-4199

**Web:** <http://www.rpms.ihs.gov/TechSupp.asp>

**Email:** [RPMSHelp@mail.ihs.gov](mailto:RPMSHelp@mail.ihs.gov)